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U.S. TRADE SHIFTS IN SELECTED COMMODITY AREAS

Annual Report for 1991



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CHAPTER 1
INTRODUCTION

The trade analysts of the U.S. International Trade Commission routinely monitor trade developments in all agricultural and manufactured commodities. Trade monitoring at the commodity-specific level enables the Commission to better anticipate and address the issues of concern in the exercise of its various roles under U.S. trade statutes. These roles include the investigation of allegations that imports have caused injury to a domestic industry and the provision of advice to the President and the Congress on the likely effects of trade-policy changes and proposals. This report, prepared periodically as an outgrowth of this monitoring function, provides a brief analysis of recent significant trade shifts at the commodity level.

The highlights of trade shifts that have occurred in 1991 relative to 1990 are presented in chapter 1 of the report. These highlights include tabulations of the import, export, and trade balance shifts by major sector and with the United States' major trading partners. In addition, the most significant shifts at the commodity level are summarized. Chapters 2 through 9 each address a specific industrial sector, providing an overview and commodity-specific analyses. Following each sector analysis is a statistical table summarizing trade for the major commodity groups within the sector.

The report includes two appendixes. Appendix A contains a listing of the commodity groups that the Commission monitors in this report. Appendix B provides estimated data on 1989-91 domestic consumption, production, employment, trade, and import penetration for the over 300 commodity groups covered in this report. These data have been estimated by the Commission's international trade analysts based on primary and secondary data sources, including discussions with various Government and industry contacts. These estimated data are subject to change either from future secondary sources or from the detailed surveys the Commission often conducts in the course of statutory investigations or other work.

U.S. Trade Performance, 1991

During 1991, rising U.S. exports in industries such as aerospace, motor vehicles, steel mill products, oil and gas field machinery, and medical goods, combined with significant U.S. import declines in areas such as crude petroleum, petroleum products, motor vehicles and parts, and various types of machinery and equipment, resulted in a significant improvement in the U.S. trade balance. When compared to 1990, the U.S. merchandise trade deficit improved by 29.2 percent, or $33.8 billion, to a level of $82.2 billion (table 1, figure 1).[1] The decline reflects an increase of 7.0 percent in U.S. exports to $400.8 billion and a 1.5-percent decrease in U.S. imports to $483.0 billion.

Export growth was experienced in every major industrial sector with the exception of agriculture and energy-related products. The largest surge was in the machinery and equipment sector, which experienced absolute growth of $12.6 billion. Import declines on a sector basis were most significant in the energy sector, where imports declined by $10.0 billion dollars and in the machinery and equipment sector with a decline of $3.5 billion.

Reflecting the above export and import shifts, the most significant improvement in trade position on a sector basis occurred in the machinery and equipment sector with a $16.0 billion improvement, as aerospace, motor vehicles and parts, and various machinery led the way. The electronic technology sector experienced by far the most significant decline in trade position, with its trade deficit growing by $3.0 billion to $16.8 billion, as automatic data processing machines, various electronic components, radio apparatus, and consumer electronics lost ground. During 1991, the United States maintained a positive balance of trade in only three sectors: agriculture, forest products, and chemicals. All other sectors continued their long-running negative position.

On a country basis, the United States improved its trade balance with most major trading partners, with the exceptions of Japan and China. Despite this improvement, the United States nevertheless experienced continuing trade deficits with all major partners but the European Community (table 2, figure 2) and Mexico. Likewise, the most significant improvements in trade position came with the European Community and Mexico, which improved by $10.2 billion and $3.9 billion respectively.

Exchange Rate Shifts

After the dramatic appreciation and depreciation of the dollar during much of the 1980s, the real value of the dollar has fluctuated within a narrow band since 1988. The dollar showed essentially no change in its value from December 1990 to December 1991, as measured by the Federal Reserve Board of Dallas real index (RX-101) (table 3). However, this hides a 4.9-percent appreciation from December 1990 until the summer of 1991, followed by a comparable decline in the second half of the year.

As is common, the dollar performance varied when measured against different currencies. While appreciating 4.2 percent in real terms from December 1990 to December 1991 against the European currencies, the dollar declined 4.2 percent against the Japanese yen, 2.4 percent against the Canadian dollar, and 1.1 percent against the currencies of the Pacific newly industrialized countries (NICs) over the same period.

The decline in the dollar over the last half of the year can be attributed in part to the failure of the U.S. economy to pull out of recession in the manner

[1] Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export.

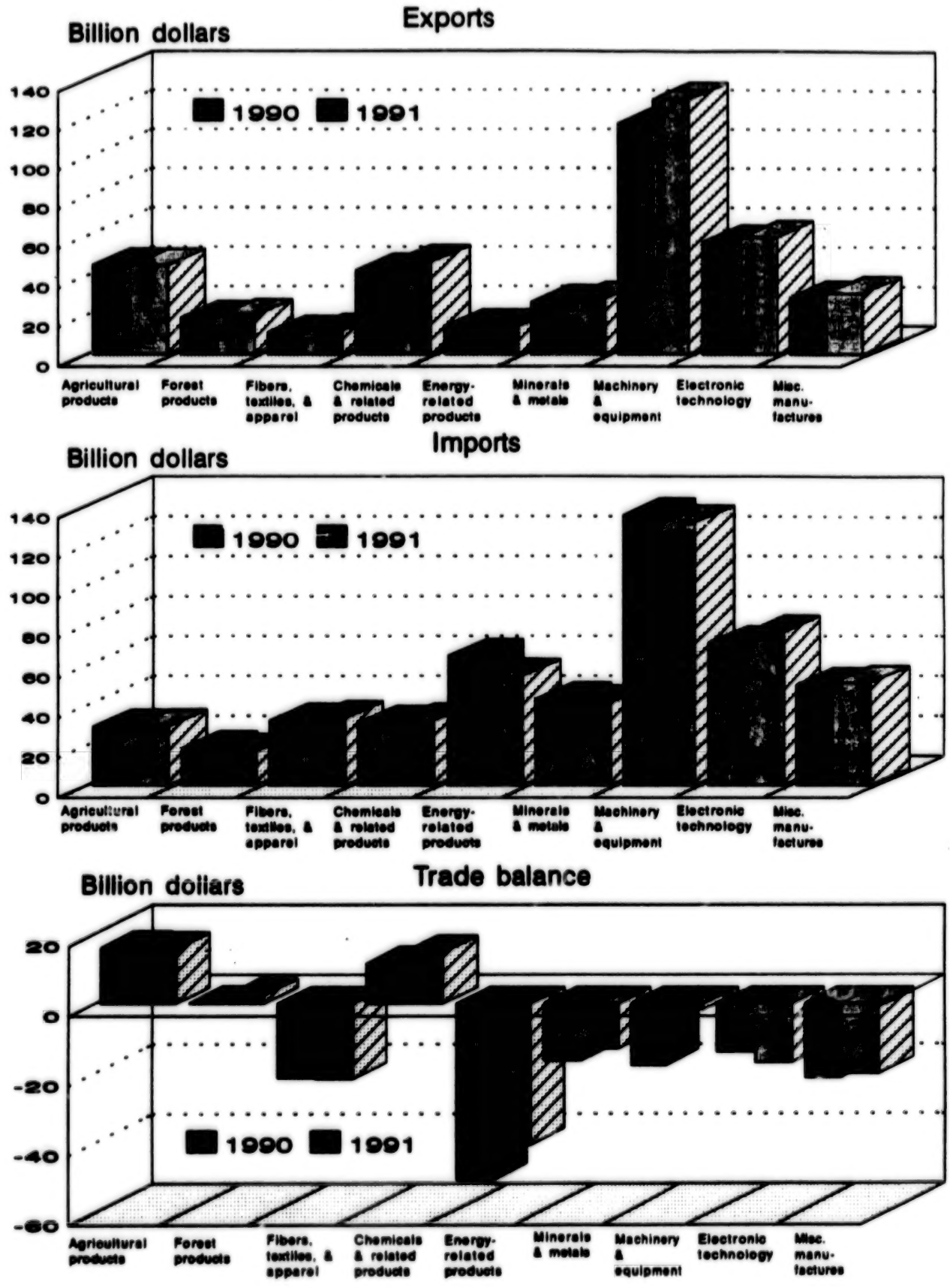
Table 1
U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major commodity sectors, 1990 and 1991[1]

Item	1990	1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Agricultural products	45,260	45,183	-77	-0.2
Forest products	18,696	19,541	845	4.5
Fibers, textiles, and apparel	11,079	12,126	1,047	9.5
Chemicals and related products	42,663	47,075	4,412	10.3
Energy-related products	14,175	14,121	-53	-0.4
Minerals and metals	26,629	28,343	1,714	6.4
Machinery and equipment	117,490	130,045	12,556	10.7
Electronic technology	57,345	59,734	2,389	4.2
Miscellaneous manufactures	28,473	30,687	2,214	7.8
Footwear	477	541	64	13.4
Special provisions	12,249	13,445	1,196	9.8
Total	374,536	400,841	26,305	7.0
U.S. imports for consumption:				
Agricultural products	29,306	29,458	152	0.5
Forest products	18,528	17,145	-1,383	-7.5
Fibers, textiles, and apparel	32,346	33,632	1,286	4.0
Chemicals and related products	31,092	32,344	1,252	4.0
Energy-related products	64,651	54,652	-9,999	-15.5
Minerals and metals	42,895	41,237	-1,658	-3.9
Machinery and equipment	135,157	131,663	-3,494	-2.6
Electronic technology	71,151	76,575	5,424	7.6
Miscellaneous manufactures	40,679	41,773	1,094	2.7
Footwear	9,538	9,542	4	0.0
Special provisions	15,210	15,005	-205	-1.3
Total	490,553	483,026	-7,527	-1.5
U.S. merchandise trade balance:				
Agricultural products	15,954	15,725	-229	-1.4
Forest products	168	2,396	2,228	1,326.2
Fibers, textiles, and apparel	-21,267	-21,506	-239	-1.1
Chemicals and related products	11,571	14,731	3,160	27.3
Energy-related products	-50,476	-40,531	9,945	19.7
Minerals and metals	-16,266	-12,894	3,372	20.7
Machinery and equipment	-17,667	-1,618	16,049	90.8
Electronic technology	-13,806	-16,841	-3,035	-22.0
Miscellaneous manufactures	-12,206	-11,086	1,120	9.2
Footwear	-9,061	-9,001	60	0.7
Special provisions	-2,961	-1,560	1,401	47.3
Total	-116,017	-82,185	33,832	29.2

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Figure 1
U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major commodity sector, 1990 and 1991



Source: Compiled from official statistics of the U.S. Department of Commerce.

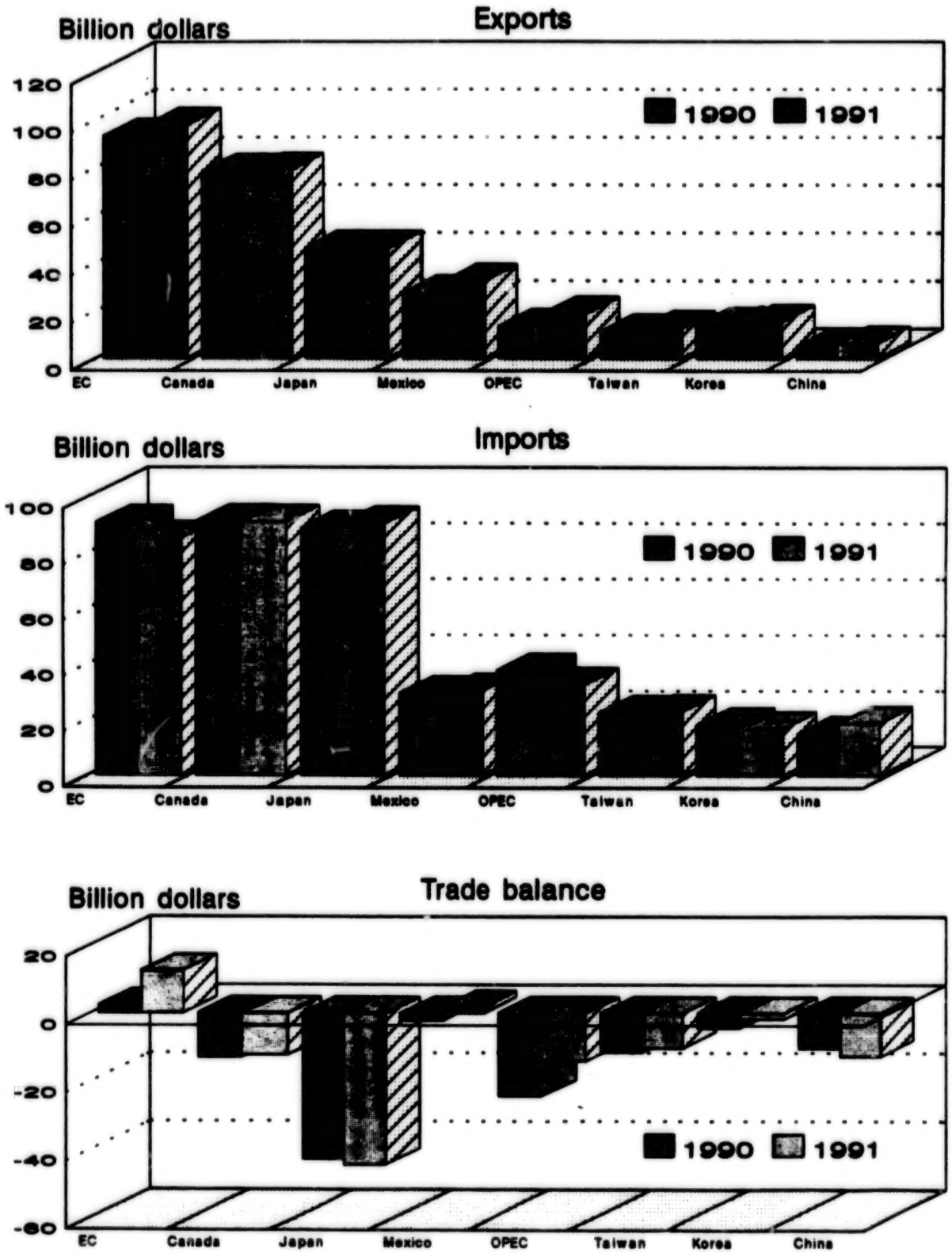
Table 2
All merchandise sectors: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1990 and 1991[1]

Item	1990	1991	Change from 1990 to 1991 Amount	Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Canada	78,218	78,712	494	0.6
Japan	46,138	46,144	6	0.0
Mexico	27,468	32,279	4,811	17.5
Germany	17,635	19,961	2,326	13.1
United Kingdom	22,236	20,911	-1,325	-5.9
Taiwan	11,142	12,718	1,576	14.1
Republic of Korea	14,074	15,211	1,137	8.0
France	12,958	14,561	1,603	12.3
Italy	7,642	8,174	532	6.9
China	4,776	6,238	1,462	30.6
Singapore	7,598	8,278	680	8.9
All other	124,651	137,654	13,003	10.4
Total	374,536	400,841	26,305	7.0
EC-12	93,060	97,598	4,538	4.8
OPEC	13,417	18,607	5,190	38.6
ASEAN	18,078	19,829	1,751	9.6
CBERA	9,241	9,742	501	5.4
Eastern Europe	1,641	1,519	-122	-7.4
U.S. imports for consumption:				
Canada	91,198	90,924	-274	-0.3
Japan	88,834	90,469	1,635	1.8
Mexico	29,506	30,445	939	3.1
Germany	28,035	25,632	-2,403	-8.5
United Kingdom	19,929	18,152	-1,777	-8.9
Taiwan	22,566	22,942	376	1.6
Republic of Korea	18,337	16,862	-1,475	-8.0
France	12,795	13,231	436	3.4
Italy	12,577	11,618	-959	-7.6
China	15,120	18,855	3,735	24.7
Singapore	9,785	9,903	118	1.2
All other	141,871	133,993	-7,878	-5.5
Total	490,553	483,026	-7,527	-1.5
EC-12	90,799	85,098	-5,701	-6.2
OPEC	37,699	32,653	-5,046	-13.3
ASEAN	27,087	28,969	1,882	6.9
CBERA	7,510	8,170	660	8.7
Eastern Europe	1,859	1,641	-218	-11.7
U.S. merchandise trade balance:				
Canada	-12,980	-12,212	768	5.9
Japan	-42,696	-44,325	-1,629	-3.8
Mexico	-2,038	1,834	3,872	189.9
Germany	-10,400	-5,671	4,729	45.4
United Kingdom	2,307	2,759	452	19.5
Taiwan	-11,424	-10,224	1,200	10.5
Republic of Korea	-4,263	-1,651	2,612	61.2
France	163	1,330	1,167	715.9
Italy	-4,935	-3,444	1,491	30.2
China	-10,344	-12,617	-2,273	-21.9
Singapore	-2,187	-1,625	562	25.6
All other	-17,216	3,661	20,881	121.2
Total	-116,017	-82,185	33,832	29.2
EC-12	2,261	12,500	10,239	452.8
OPEC	-24,282	-14,046	10,236	42.1
ASEAN	-9,009	-9,140	-131	-1.4
CBERA	1,731	1,572	-159	-9.1
Eastern Europe	-218	-122	96	44.0

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Figure 2
U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major trading partners, 1990 and 1991



Source: Compiled from official statistics of the U.S. Department of Commerce.

anticipated after the end of the Persian Gulf war. The continued decline in interest rates induced by the Federal Reserve Board was another important contribution to the pattern experienced towards the end of 1991.

In the long run, dollar appreciations should lead to a worsening of the trade balance (as imports become relatively less expensive in the U.S. market and U.S. exports become relatively more expensive abroad), and dollar depreciations should lead to improvement. However, the short-run fluctuations experienced over the past few years in the exchange rate are not likely to be reflected in significant changes in the trade balance.

For all of 1991, the average real value of the dollar increased by 0.4 percent over the comparable 1990 figure (table 3). For the same period of comparison, the U.S. merchandise trade balance showed tremendous improvement, with the deficit declining by 29.2 percent (table 1). As evidence of the lack of a short-run relationship between the real value of the dollar and the trade balance, the U.S. trade balance improved with both the EC and Canada while the dollar appreciated against the European currencies and depreciated against the Canadian dollar; furthermore, the U.S. trade balance worsened with respect to Japan despite a depreciation of the dollar against the yen.

Summaries of Significant Commodity Shifts

Numerous important commodity shifts occurred in the periods under review within each of the major industrial sectors. These shifts are discussed in detail in chapters 2 through 9, and tabular summaries of the most significant of these shifts are presented on the following pages in tables 4 through 9. These six tables provide listings of the most significant export, import, and trade balance shifts in rank order, including an indication of the absolute and percentage changes between the two periods under consideration.

Table 3
Real exchange rate indexes of foreign currencies or baskets of currencies against the U.S. dollar, January 1990-December 1991[1]

Period	Total[2]	Europe	Pacific NICs	Canada	Japan	Western Hemisphere[3]
1990:						
January	76.7	59.7	89.9	84.1	64.0	96.2
February	77.0	58.8	90.1	85.9	64.3	97.5
March	77.9	59.9	90.6	84.8	67.8	96.3
April	77.9	58.8	90.2	83.8	69.7	98.4
May	77.7	57.7	90.1	84.3	67.3	104.9
June	78.0	58.2	90.9	84.2	68.1	104.6
July	77.1	56.4	90.5	83.1	66.5	105.7
August	76.5	54.2	90.6	82.9	65.9	109.1
September	75.9	54.3	89.8	84.3	62.1	109.1
October	74.5	52.7	90.4	84.3	57.6	110.2
November	74.3	51.8	91.2	84.2	57.6	110.4
December	75.0	52.3	91.7	84.0	59.7	109.5
1991:						
January	75.4	52.7	93.1	82.1	59.8	108.8
February	74.5	51.5	92.2	82.1	58.6	108.1
March	76.7	55.6	92.7	82.1	61.3	107.2
April	77.5	58.4	92.6	82.0	61.1	106.9
May	77.7	59.0	92.5	81.5	61.3	107.0
June	78.7	61.5	92.4	81.0	62.6	106.3
July	78.7	61.5	91.9	81.4	61.9	105.8
August	78.1	60.1	91.2	81.3	62.4	105.5
September	77.1	58.6	91.2	81.2	60.6	105.3
October	76.5	58.2	90.6	80.8	58.3	106.6
November	75.7	56.2	90.9	80.9	57.9	106.4
December	75.1	54.5	90.7	82.0	57.2	(4)
Average:						
1990	76.5	56.2	90.5	84.2	64.2	104.3
1991	76.8	57.3	91.8	81.5	60.3	(4)
Percent change	0.4	2.0	1.4	-3.2	-6.1	(4)

[1] Index numbers: 1985 (1st quarter) = 100.
[2] The Dallas Fed's index of real exchange rates weighted by U.S. bilateral trade with 101 trading partners (RX-101).
[3] Western Hemisphere excludes Canada.
[4] Not available.

Source: Federal Reserve Bank of Dallas, *Trade-Weighted Value of the Dollar*, Feb. 1991, Aug. 1991, and Mar. 1992.

Table 4
Domestic export growth: Ranking of top 20 commodity groups

USITC Code	Commodity group	U.S. exports 1990	U.S. exports 1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
Absolute value growth basis:					
ME042	Aircraft, spacecraft, and related equipment	29,439	34,403	4,964	16.9
ME038	Automobiles, trucks, buses, and bodies and chassis of the foregoing	13,264	15,403	2,139	16.1
ME023	Semiconductor equipment, robots, and other machinery	8,910	10,177	1,267	14.2
MM027	Steel mill products, all grades	2,784	3,685	901	32.4
GM014	Medical goods	5,317	6,206	889	16.7
ST001	Office machines	10,921	11,637	716	6.6
GM034	Measuring, testing, controlling, and analyzing instruments	7,098	7,757	659	9.3
CH028	Medicinal chemicals, except antibiotics	3,870	4,418	548	14.2
CH012	Benenoid specialty chemicals	2,884	3,431	547	19.0
GM019	Furniture and selected furnishings	1,731	2,256	525	30.3
ST018	Automatic data processing machines	13,804	14,316	512	3.7
ME001	Aircraft engines and gas turbines	7,829	8,330	501	6.4
AG034	Edible preparations	1,440	1,941	501	34.8
AG056	Industrial papers and paperboards	2,817	3,314	497	17.6
CH042	Other plastics in primary forms	3,190	3,664	474	14.9
ME028	Electric motors, generators, and related equipment	1,866	2,338	472	25.3
ME041	Miscellaneous vehicles and transportation-related equipment	1,777	2,244	467	26.3
CH019	Fertilizers	2,697	3,138	441	16.4
CH013	Miscellaneous organic chemicals	4,303	4,744	441	10.2
AG032	Oilseeds	3,705	4,124	419	11.3
Percentage growth basis:					
MM002	Certain miscellaneous mineral substances	4	19	15	375.0
TX031	Rubber, plastic, and coated-fabric apparel	50	90	40	80.0
TX020	Sweaters	18	31	13	72.2
GM022	Prefabricated buildings	171	276	105	61.4
TX023	Robes, nightwear, and underwear	197	302	105	53.3
GM010	Bicycles	114	174	60	52.6
AG004	Sheep and meat of sheep	24	36	12	50.0
GM007	Silverware and certain other articles of precious metal or metal clad with precious metal	85	127	42	49.4
TX018	Women's and girls' trousers	141	209	68	48.2
ME040	Motorcycles, mopeds, and parts	306	441	135	44.1
GM011	Optical fibers, optical fiber bundles and cables	172	247	75	43.6
GM004	Certain other leather goods	44	63	19	43.2
CH007	Natural gas and components	493	700	207	42.0
ME027	Boilers, turbines, and related machinery	632	897	265	41.9
AG011	Eggs	99	140	41	41.4
TX028	Headwear	64	89	25	39.1
TX016	Men's and boys' coats and jackets	50	69	19	38.0
TX033	Other wearing apparel	204	276	72	35.3
ME030	Primary cells and batteries and electric storage batteries	590	797	207	35.1
AG034	Edible preparations	1,440	1,941	501	34.8

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 5
Domestic export declines: Ranking of top 20 commodity groups

USITC Code	Commodity group	U.S. exports 1990	U.S. exports 1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
Absolute value decline basis:					
AG030	Cereals	11,941	10,096	-1,845	-15.5
GM031	Miscellaneous articles	2,493	1,503	-990	-39.7
AG043	Cigarettes	4,761	4,232	-529	-11.1
AG054	Pulp and wastepaper	4,056	3,616	-440	-10.8
CH001	Electrical energy	491	54	-437	-89.0
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits	5,280	4,870	-410	-7.8
AG044	Hides, skins, and leather	2,372	1,967	-405	-17.1
MM025	Iron and steel waste and scrap	1,642	1,240	-402	-24.5
TX001	Textile fibers and waste	3,641	3,398	-243	-6.7
AG046	Logs and rough wood products	2,973	2,765	-208	-7.0
ME039	Certain motor-vehicle parts	13,713	13,520	-193	-1.4
CH010	Benzene, toluene, and mixed xylenes	276	105	-171	-62.0
CH005	Crude petroleum	183	35	-148	-80.9
CH004	Coal chemicals	396	268	-128	-32.3
CH011	Benzenoid commodity chemicals	1,507	1,381	-126	-8.4
ME043	Ships, tugs, pleasure boats, and similar vessels	1,291	1,174	-117	-9.1
MM021	Natural and synthetic gemstones	545	452	-93	-17.1
MM007	Certain ores, concentrates, ash, and residues	362	292	-70	-19.3
ME019	Metal rolling mills and parts thereof	252	185	-67	-26.6
CH026	Pesticide products and formulations	1,493	1,427	-66	-4.4
Percentage decline basis:					
CH001	Electrical energy	491	54	-437	-89.0
CH005	Crude petroleum	183	35	-148	-80.9
MM008	Precious metal ores and concentrates	13	4	-9	-69.2
CH010	Benzene, toluene, and mixed xylenes	276	105	-171	-62.0
MM046	Table flatware and related products	43	24	-19	-44.2
GM031	Miscellaneous articles	2,493	1,503	-990	-39.7
MM005	Lead ores and residues	62	38	-24	-38.7
CH004	Coal chemicals	396	268	-128	-32.3
ME019	Metal rolling mills and parts thereof	252	185	-67	-26.6
AG045	Furskins	205	154	-51	-24.9
MM025	Iron and steel waste and scrap	1,642	1,240	-402	-24.5
MM042	Zinc and related articles	118	91	-27	-22.9
ME044	Motors and engines, except internal combustion, aircraft, or electric	105	84	-21	-20.0
MM007	Certain ores, concentrates, ash, and residues	362	292	-70	-19.3
MM021	Natural and synthetic gemstones	545	452	-93	-17.1
AG044	Hides, skins, and leather	2,372	1,967	-405	-17.1
AG030	Cereals	11,941	10,096	-1,845	-15.5
MM013	Ceramic sanitary fixtures	54	46	-8	-14.8
MM004	Copper ores and concentrates	446	382	-64	-14.4
MM006	Zinc ores and residues	269	232	-37	-13.8

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 6
Domestic import growth: Ranking of top 20 commodity groups

USITC Code	Commodity group	U.S. imports 1990	U.S. imports 1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
Absolute value growth basis:					
ST018	Automatic data processing machines	15,416	18,014	2,598	16.9
ME042	Aircraft, spacecraft, and related equipment	6,369	7,501	1,132	17.8
ST016	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices	12,169	13,081	912	7.5
CH028	Medicinal chemicals, except antibiotics	3,207	3,919	712	22.2
MM022	Precious metals and related articles	3,758	4,406	648	17.2
ST001	Office machines	11,455	11,932	477	4.2
GM014	Medical goods	3,292	3,762	470	14.3
GM016	Watches	1,443	1,855	412	28.6
ST002	Telephone and telegraph apparatus	4,488	4,841	353	7.9
ST007	Radio transmission and reception apparatus, and combinations thereof	5,051	5,368	317	6.3
TX005	Broadwoven fabrics	2,657	2,950	293	11.0
ME001	Aircraft engines and gas turbines	5,083	5,373	290	5.7
ST004	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players	4,539	4,814	275	6.1
CH012	Benenoid specialty chemicals	1,811	2,066	255	14.1
TX019	Shirts and blouses	7,147	7,401	254	3.6
GM034	Measuring, testing, controlling, and analyzing instruments	3,369	3,621	252	7.5
CH029	Antibiotics	738	986	248	33.6
MM044	Nonpowered handtools	1,378	1,620	242	17.6
AG009	Shellfish	2,555	2,794	239	9.4
ST005	Unrecorded magnetic tapes, discs, and other media	1,474	1,673	199	13.5
Percentage growth basis:					
AG043	Cigarettes	31	120	89	287.1
TX024	Hosiery	186	314	128	68.8
CH038	Polypropylene resins in primary forms	38	64	26	68.4
AG022	Citrus fruit	89	148	59	66.3
CH010	Benzene, toluene, and mixed xylenes	124	196	72	58.1
ME035	Electric and gas welding and soldering equipment	297	435	138	46.5
GM017	Clocks and timing devices	233	317	84	36.1
CH009	Other olefins	14	19	5	35.7
TX004	Miscellaneous yarns	48	65	17	35.4
CH029	Antibiotics	738	986	248	33.6
CH023	Synthetics tanning agents	3	4	1	33.3
ME040	Motorcycles, mopeds, and parts	449	584	135	30.1
GM016	Watches	1,443	1,855	412	28.6
TX006	Knit fabrics	144	183	39	27.1
TX012	Sacks and bags of textile materials	41	52	11	26.8
AG041	Unmanufactured tobacco	583	736	153	26.2
AG042	Cigars, and certain other manufactured tobacco	63	79	16	25.4
TX003	Filament yarns	335	420	85	25.4
MM023	Pig iron	60	75	15	25.0
CH028	Medicinal chemicals, except antibiotics	3,207	3,919	712	22.2

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 7
Domestic import declines: Ranking of top 20 commodity groups

USITC Code	Commodity group	U.S. imports 1990	U.S. imports 1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
Absolute value decline basis:					
CH005	Crude petroleum	43,833	37,374	-6,459	-14.7
CH006	Petroleum products	16,138	12,578	-3,560	-22.1
ME038	Automobiles, trucks, buses, and bodies and chassis of the foregoing	59,504	58,084	-1,420	-2.4
ME039	Certain motor-vehicle parts	12,618	11,565	-1,053	-8.3
ME012	Construction and mining equipment	2,263	1,344	-919	-40.6
GM026	Games and fairground amusements	2,818	2,091	-727	-25.8
AG054	Pulp and wastepaper	2,886	2,176	-710	-24.6
ME014	Farm and garden machinery and equipment	2,783	2,103	-680	-24.4
ME002	Internal combustion piston engines, other than for aircraft	5,731	5,163	-568	-9.9
MM027	Steel mill products, all grades	8,385	7,892	-493	-5.9
MM042	Zinc and related articles	1,034	663	-371	-35.9
CH045	Pneumatic tires and tubes (new)	2,522	2,227	-295	-11.7
ME018	Textile machinery and parts	1,488	1,196	-292	-19.6
AG057	Newsprint	4,247	3,979	-268	-6.3
MM009	Certain nonmetallic minerals and articles	1,923	1,663	-260	-13.5
MM040	Aluminum mill products	1,222	963	-259	-21.2
MM039	Unwrought aluminum	2,252	2,021	-231	-10.3
ME004	Air-conditioning equipment and parts	2,892	2,668	-224	-7.7
AG036	Fruit and vegetable juices	1,000	793	-207	-20.7
AG040	Distilled spirits	1,511	1,304	-207	-13.7
Percentage decline basis:					
MM008	Precious metal ores and concentrates	30	11	-19	-63.3
CH004	Coal chemicals	296	144	-152	-51.4
MM004	Copper ores and concentrates	134	67	-67	-50.0
ME012	Construction and mining equipment	2,263	1,344	-919	-40.6
GM022	Prefabricated buildings	34	21	-13	-38.2
MM042	Zinc and related articles	1,034	663	-371	-35.9
MM029	Fabricated structurals	72	47	-25	-34.7
AG032	Oilseeds	179	119	-60	-33.5
TX030	Fur apparel and other fur articles	249	172	-77	-30.9
CH008	Major primary olefins	265	188	-77	-29.1
MM001	Clays and nonmetallic minerals and products, not elsewhere specified or included	122	87	-35	-28.7
MM002	Certain miscellaneous mineral substances	56	41	-15	-26.8
CH011	Benzenoid commodity chemicals	485	357	-128	-26.4
GM026	Games and fairground amusements	2,818	2,091	-727	-25.8
AG045	Furskins	100	75	-25	-25.0
MM005	Lead ores and residues	4	3	-1	-25.0
ME011	Forklift trucks and similar industrial vehicles	817	614	-203	-24.8
AG054	Pulp and wastepaper	2,886	2,176	-710	-24.6
ME014	Farm and garden machinery and equipment	2,783	2,103	-680	-24.4
ME019	Metal rolling mills and parts thereof	169	130	-39	-23.1

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 8
U.S. trade position improvements: Ranking of top 30 commodity groups

(In millions of dollars)

USITC Code	Commodity group	U.S. balance 1990	U.S. balance 1991	Absolute change from 1990 to 1991
CH005	Crude petroleum	-43,650	-37,339	6,311
ME042	Aircraft, spacecraft, and related equipment	23,070	26,902	3,832
CH006	Petroleum products	-8,836	-5,117	3,719
ME038	Automobiles, trucks, buses, and bodies and chassis of the foregoing	-46,240	-42,681	3,559
MM027	Steel mill products, all grades	-5,601	-4,207	1,394
ME023	Semiconductor equipment, robots, and other machinery	3,283	4,533	1,250
ME012	Construction and mining equipment	848	2,044	1,196
GM026	Games and fai round amusements	-2,271	-1,407	864
ME039	Certain motor-vehicle parts	1,095	1,955	860
ME002	Internal combustion piston engines, other than for aircraft	-135	687	822
ME014	Farm and garden machinery and equipment	759	1,384	625
GM019	Furniture and selected furnishings	-3,319	-2,725	594
AG056	Industrial papers and paperboards	1,830	2,378	548
AG032	Oilseeds	3,526	4,005	479
MM040	Aluminum mill products	290	733	443
CH042	Other plastics in primary forms	2,181	2,618	437
CH037	Polyethylene resins in primary forms	578	1,012	434
GM014	Medical goods	2,025	2,444	419
CH019	Fertilizers	1,184	1,602	418
CH045	Pneumatic tires and tubes (new)	-1,425	-1,012	413
GM034	Measuring, testing, controlling, and analyzing instruments	3,729	4,136	407
ST017	Electrical and electronic articles, apparatus, and parts not elsewhere provided for	368	774	406
ME004	Air-conditioning equipment and parts	157	550	393
MM048	Miscellaneous products of base metal	-713	-322	391
AG058	Printing and writing papers	-1,595	-1,229	366
AG061	Printed matter	1,456	1,821	365
ME028	Electric motors, generators, and related equipment	-397	-32	365
AG057	Newsprint	-3,954	-3,591	363
AG013	Animal feeds	2,572	2,924	352
ME041	Miscellaneous vehicles and transportation-related equipment	699	1,050	351

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 9
U.S. trade position declines: Ranking of top 30 commodity groups

(In millions of dollars)

USITC Code	Commodity group	U.S. balance 1990	U.S. balance 1991	Absolute change from 1990 to 1991
ST018	Automatic data processing machines	-1,612	-3,698	-2,086
AG030	Cereals	11,627	9,742	-1,885
GM031	Miscellaneous articles	-1,029	-1,844	-815
ST016	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices	-1,312	-2,082	-770
AG043	Cigarettes	4,730	4,112	-618
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits	-172	-742	-570
CH001	Electrical energy	28	-433	-461
GM016	Watches	-1,323	-1,729	-406
MM025	Iron and steel waste and scrap	1,462	1,091	-371
AG044	Hides, skins, and leather	1,584	1,274	-310
ST007	Radio transmission and reception apparatus, and combinations thereof	-1,584	-1,858	-274
ST004	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players	-4,078	-4,331	-253
MM022	Precious metals and related articles	57	-190	-247
CH010	Benzene, toluene, and mixed xylenes	152	-91	-243
TX001	Textile fibers and waste	3,044	2,806	-238
MM044	Nonpowered handtools	-315	-529	-214
TX005	Broadwoven fabrics	-1,424	-1,629	-205
AG046	Logs and rough wood products	2,668	2,464	-204
AG041	Unmanufactured tobacco	858	692	-166
CH028	Medicinal chemicals, except antibiotics	663	499	-164
TX019	Shirts and blouses	-6,786	-6,947	-161
GM025	Toys and models	-2,334	-2,493	-159
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus	-2,363	-2,519	-156
ST005	Unrecorded magnetic tapes, discs, and other media	232	86	-146
AG009	Shellfish	-1,801	-1,942	-141
ME035	Electric and gas welding and soldering equipment	88	-46	-134
CH029	Antibiotics	524	394	-130
GM013	Photographic cameras and equipment	-796	-921	-125
TX003	Filament yarns	441	331	-110
TX024	Hosiery	-113	-216	-103

Source: Compiled from official statistics of the U.S. Department of Commerce.

CHAPTER 2
AGRICULTURAL PRODUCTS

The agricultural products sector traditionally has been the largest surplus contributor to the U.S. balance of trade. However, for the second year in a row, the agricultural products surplus declined slightly, from a $16.0 billion surplus in 1990 to a $15.7 billion surplus in 1991 (table 10). U.S. imports of agricultural products rose by less than 1 percent, from $29.3 billion in 1990 to $29.5 billion in 1991. Agricultural product exports declined by less than one-half percent, from $45.3 billion in 1990 to $45.2 billion in 1991. The value of U.S. exports of food grains (primarily wheat and rice) declined by over 15 percent, from $11.9 billion to $10.1 billion. This decline is due primarily to a drop in commodity prices: wheat prices fell by about 30 percent, and rice prices dropped by about 10 percent. Some of the decline in food grain exports was offset by increased exports from other areas (e.g., oilseeds, animal feeds, and shellfish).

Historically, the leading U.S. agricultural exports include food grains, cigarettes, oilseeds, and animal feeds; these four export groupings have traditionally comprised about half of all agricultural exports. In 1991, U.S. exports of food grains, cigarettes, oilseeds, and animal feeds, respectively, amounted to $10.1 billion, $4.2 billion, $4.1 billion, and $3.3 billion. The decline in food grain exports is primarily attributable to a decline in commodity prices. The average farm price for wheat declined to $2.61 per bushel from $3.72 per bushel. The average market price for rice fell to approximately $6.70 per hundredweight from $7.35 per hundredweight. U.S. exports of cigarettes declined to $4.2 billion in 1991 from $4.8 billion in 1990 as the level of cigarette exports to the EC, Hong Kong, Taiwan, and South Korea declined. The "hides, skins, and leather" grouping also experienced a significant downturn in the level of U.S. exports for 1991. U.S. exports of oilseeds increased to $4.1 billion in 1991 from $3.7 billion in 1990, despite a 2-percent decline in price of the leading oilseed, soybeans. The increase was a reflection of strong demand abroad (especially in the EC) coupled with diminished output from other major world exporters (i.e., Brazil). U.S. exports of animal feeds increased to $3.3 billion in 1991 from $2.9 billion in 1990. The largest market for U.S. animal feed exports, the EC, accepted about one-third of these exports in 1991. Other groupings within the agricultural products sector that experienced an increase in export levels from 1990 to 1991 include shellfish, dairy produce, eggs, citrus, beer, distilled spirits, wine, and fruit and vegetable juices.

Agricultural product imports increased by $152 million from 1990 to 1991. The leading U.S. agricultural import categories were shellfish ($2.8 billion), cattle and beef ($2.6 billion), coffee and tea ($2.0 billion), frozen fish ($1.5 billion), distilled spirits ($1.3 billion), and cocoa, chocolate, and confectionery ($1.3 billion). These six agricultural product groupings represented about 40 percent of the agricultural sector imports during 1991. An increase in U.S. shrimp imports was the primary factor contributing to the increase in the level of all U.S. shellfish imports. A shift to higher valued, peeled shrimp coupled with reduced domestic shrimp supplies encouraged increased shellfish imports from Thailand, Ecuador, Canada, Mexico, and China during 1991. U.S. imports of citrus fruit also increased significantly from 1990 to 1991. Freeze damage to the California navel orange crop encouraged a significant increase in imports of these oranges. In addition, quarantine restrictions on fresh orange imports from Mexico and Morocco were lifted, and Spain produced a bumper crop of fresh oranges (many of which were destined for the U.S. market). U.S. imports of unmanufactured tobacco experienced an increase, attributable primarily to a modest increase in unmanufactured tobacco imports from Brazil and Turkey during 1991. U.S. imports of distilled spirits, fruit and vegetable juices, sugar, dairy produce, and "hides, skins, and leather," declined from 1990 to 1991. The decline in distilled spirit imports mirrors the decline in domestic consumption. The decline in fruit and vegetable juice imports reflects a reduced profitability for importers of frozen concentrated orange juice from the major suppliers, Brazil and Mexico. The decrease in U.S. imports of sugar in 1991 resulted from a decreased U.S. sugar tariff rate quota reflecting the recovery of the cane crop in Louisiana, which was freeze-damaged in 1989, and the sugar beet crop in the Red River Valley, which was reduced in 1990 by drought. The decline in imports of dairy produce is attributable primarily to a decline in the unit value of imported casein, which fell by 20 percent. A recent decline in the domestic demand for shoe upper leather contributed to the decline in U.S. imports of "hides, skins, and leather."

U.S. Bilateral Trade

The major U.S. trading partners in agricultural products during 1991 were the EC, Japan, Canada, and Mexico, which together accounted for $41.1 billion in agricultural trade, or 55 percent of the U.S. total (table 10). Japan is the largest U.S. agricultural export market, and it accepted 24 percent of all U.S. agricultural exports during 1991. In 1991, the EC accepted 19 percent of U.S. exports and supplied 18 percent of U.S. agricultural imports. Agricultural product trade with Mexico was nearly balanced at $3.0 billion for both exports and imports during 1991. Canada posted a trade surplus in agricultural products with the United States in 1991 of $231 million. Bilateral agricultural trade with Canada amount to $10.0 billion in 1991 compared with $9.4 billion in 1990.

The agricultural trade deficit with Canada improved from $376 million in 1990 to $231 million in 1991. The largest U.S. agricultural trade surplus with Canada was in the fruits and vegetables group and the larger deficits were in the fish and shellfish group and

Table 10
Agricultural, animal, and vegetable products sector: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1990 and 1991[1]

Item	1990	1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Canada	4,510	4,868	358	7.9
Japan	10,866	10,824	-42	-0.3
Mexico	2,537	2,975	438	17.2
Germany	1,111	1,128	17	1.5
United Kingdom	883	928	45	5.0
Taiwan	1,780	1,992	212	11.9
Republic of Korea	2,487	2,077	-410	-16.4
France	613	677	64	10.4
Italy	660	642	-18	-2.7
China	547	433	-114	-20.8
Singapore	305	263	-42	-13.7
All other	18,961	18,380	-585	-3.0
Total	45,260	45,183	-77	-0.2
EC-12	8,762	8,574	-188	-2.1
OPEC	2,305	1,920	-385	-16.7
ASEAN	1,078	1,079	1	0.0
CBERA	1,522	1,558	36	2.3
Eastern Europe	536	231	-305	-56.9
U.S. imports for consumption:				
Canada	4,886	5,099	213	4.3
Japan	386	371	-15	-3.8
Mexico	2,972	2,901	-71	-2.3
Germany	581	598	17	2.9
United Kingdom	759	721	-38	-5.0
Taiwan	363	357	-6	-1.6
Republic of Korea	204	201	-3	-1.4
France	1,027	968	-59	-5.7
Italy	859	878	19	2.2
China	651	595	-56	-8.6
Singapore	122	107	-15	-12.2
All other	16,496	16,662	166	1.0
Total	29,306	29,458	152	0.5
EC-12	5,672	5,448	-224	-3.9
OPEC	1,325	1,451	126	9.5
ASEAN	2,201	2,588	387	17.5
CBERA	2,016	1,972	-44	-2.1
Eastern Europe	361	331	-30	-8.3
U.S. merchandise trade balance:				
Canada	-376	-231	145	38.5
Japan	10,480	10,453	-27	-0.2
Mexico	-435	74	509	117.0
Germany	530	530	0	0.0
United Kingdom	124	207	83	66.9
Taiwan	1,417	1,635	218	15.3
Republic of Korea	2,283	1,876	-407	-17.8
France	-414	-291	123	29.7
Italy	-199	-236	-37	-18.5
China	-104	-162	-58	-55.7
Singapore	183	156	-27	-14.7
All other	2,465	1,714	-751	-30.4
Total	15,954	15,725	-229	-1.4
EC-12	3,090	3,126	36	1.1
OPEC	980	469	-511	-52.1
ASEAN	-1,123	-1,509	-386	-34.3
CBERA	-494	-414	80	16.1
Eastern Europe	175	-100	-275	-157.1

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Source: Compiled from official statistics of the U.S. Department of Commerce.

the live animals and miscellaneous meats group. Canada also exported significant amounts of distilled spirits and beer to the United States. Important U.S. exports to Canada included meats, animal feeds, and fish.

The agricultural trade balance with Mexico also improved, from a $435 million deficit in 1990 to a $74 million surplus in 1991. The larger U.S. agricultural trade surpluses with Mexico were in the food grains, oilseeds, and the meat and offal group. The larger trade deficits with Mexico were in fresh vegetables, fresh fruit, coffee, and shellfish. Mexico also exported to the United States considerable amounts of "live animals and miscellaneous meats," prepared and preserved fruits and vegetables, and beer.

The agricultural trade balance with the EC in 1991 improved very slightly to a $3.1 billion surplus. The larger U.S. agricultural trade surpluses with the EC were in tobacco, oilseeds, feed grains, food grains, and fresh fruit. The larger U.S. agricultural trade deficits with the EC were in wine, distilled spirits, beer, and dairy produce. The United States exported a modest amount of fish and "live animals and miscellaneous meats" to the EC. The United States also imported considerable amounts of meats, prepared and preserved vegetables, and fish from the EC.

The traditionally large U.S. agricultural trade surplus with Japan declined very slightly to $10.5 billion in 1991. The United States ran a trade surplus with Japan in nearly every major agricultural grouping. The only U.S. agricultural import from Japan consistently over $100 million annually was the "fish and shellfish" grouping. The major U.S. agricultural exports to Japan, each amounting to over $1.0 billion in 1991, were food grains, fish, meat and offal, tobacco, and oilseeds.

Commodity Analyses

Animal feeds, feed grains, and food grains

U.S. exports of animal feeds rose by nearly 13 percent, from almost $3.0 billion in 1990 to $3.3 billion in 1991. The share of U.S. animal feed exports to the EC, the largest importer of U.S. animal feeds, declined from 39 percent in 1990 to 37 percent in 1991. The largest increases in exports were to the Commonwealth of Independent States (CIS), Canada, Japan, and Mexico.

However, abundant world production and stocks of feed grains (coarse grains) and food grains[2] generally eroded U.S. exports of these products during 1991. U.S. exports of feed grains dropped by nearly 23 percent, declining from 69.7 million metric tons to 54 million metric tons. The drop in U.S. exports of feed grains occurred largely because of increased foreign coarse grain production eroding U.S. sales abroad. Also, the average farm price of U.S. corn declined by 3 percent to $2.28 per bushel in crop year 1990/91.

[2] Food grains include wheat, rice, and rye.

Similarly, U.S. exports of food grains declined by over 15 percent from 1990 to 1991, dropping from $11.9 billion to $10.1 billion. The decline in U.S. food grain exports is the result of near record world wheat production and stocks, owing to good crop output, especially in the EC and Canada. Lower prices also contributed to the declining U.S. exports. The U.S. farm price for wheat declined by 30 percent to $2.61 per bushel in crop year 1990/91, and that for rice by 9 percent to $6.70 per hundredweight. In 1991, most U.S. food grain exports went to Japan (21 percent) and the CIS (16 percent).

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Tobacco

U.S. exports of tobacco and tobacco products in 1991 amounted to $6 billion, or 8 percent less than in 1990. Cigarettes continued to account for the majority of these exports, but for the first time in 5 years cigarettes experienced a decline in exports, dropping from $4.8 billion in 1990 to $4.2 billion in 1991, or by 11 percent.

The EC was the largest market for U.S. cigarette exports in the years prior to 1991, accounting for 32 percent of all exports during 1987-1990. However, in 1991, the EC received only 29 percent of all U.S. exports while Japan captured 32 percent of U.S. cigarette exports. U.S. cigarette exports to the EC declined from $1.8 billion in 1990 to $1.2 billion in 1991. U.S. cigarette exports to Japan increased by 3 percent in 1991, amounting to $1.3 billion that year.

The CIS continued to grow as a U.S. market for cigarettes. U.S. exports to the CIS increased from $47 million in 1990 to $84 million in 1991, or by about 79 percent. Although the opening of new markets in Eastern Europe contributed to a surge in U.S. cigarette shipments to the region in 1990, the 1991 levels declined precipitously. Trade data do not necessarily indicate the exact amount of trade with Eastern Europe, since many U.S. exports that were recorded as destined for the EC were actually transshipped to other destinations, including Eastern Europe. Although the precise value of U.S. exports to Eastern Europe in 1991 is uncertain, the data suggest that such exports in 1991 decreased by about 60 percent since 1990, returning to their 1989 level.

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Oilseeds and animal or vegetable fats and oils

A larger volume of U.S. exports in 1991 offset lower prices, and U.S. exports of oilseeds rose by 11 percent to $4.1 billion, as compared to exports in 1990. The volume of U.S. exports of the leading oilseed, soybeans, rose by 14 percent to 17.7 million metric tons in 1991, and the export price (export unit value) fell by 2 percent to $227 per metric ton of soybeans during 1991. The 1991 U.S. soybean crop was about 3 percent larger than the crop harvested in 1990.

The EC, the leading U.S. market, purchased about 38 percent of U.S. oilseed exports in 1991. Lower U.S. prices and strong EC demand for animal feedstuffs stimulated U.S. soybean sales in that market. Moreover, foreign purchasers turned to U.S. soybeans during 1991 since the other leading supplier, Brazil, had smaller available supplies. Brazilian soybean production declined by 22 percent in 1991, leaving the United States as virtually the only supplier to world soybean markets for the latter part of 1991.

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Shellfish

U.S. exports of shellfish rose from $754 million in 1990 to $852 million in 1991, or by 13 percent. The leading export markets in 1991 were Japan (60 percent of the total) and Canada (17 percent). Increases in exports of crabs (mainly frozen king and snow crab sections to Japan) and lobsters (mainly live American lobsters to Europe) facilitated by a rise in the domestic harvest of these high-demand species contributed the bulk of the increase of overall shellfish exports during the periods under review.

U.S. imports of shellfish also rose from $2.6 billion during 1990 to $2.8 billion during 1991, or by 9 percent. The leading sources of imports in 1991 were Thailand (16 percent of the total), Ecuador (13 percent), Canada (12 percent), Mexico (9 percent), and China (9 percent). Most of the increase was accounted for by shrimp from these leading sources. U.S. shrimp imports rose from $1.7 billion in 1990 to $1.9 billion in 1991, or by 12 percent; such imports accounted for two-thirds of the total value of U.S. shellfish imports in 1991. A shift towards imports of higher valued, peeled shrimp, coupled with lower domestically produced supplies due to a decline in the 1991 U.S. shrimp harvest led to the increase in value of U.S. shrimp imports between the periods under review.

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Eggs

U.S. exports of eggs rose from $99 million in 1990 to $140 million in 1991, or by 41 percent. The leading markets in 1991 were Japan (24 percent of the total), Canada (22 percent), Hong Kong (16 percent), and Mexico (7 percent). The bulk of the rise in exports was accounted for by increases in exports of egg products to Japan and shell eggs to Hong Kong. These are expanding markets, and U.S. producers generally possess cost advantages compared with the domestic industries of those countries. In addition, U.S. egg exports benefit from export assistance programs administered by the U.S. Department of Agriculture.

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Citrus fruit

U.S. citrus exports and imports increased to record levels in 1991. Contributing factors to this situation include bumper crops in many countries; trade liberalization measures; low prices for citrus juice (which encouraged producers to shift from juice to fresh citrus); and a freeze in California (which contributed to a surge in U.S. navel orange imports). U.S. exports of fresh citrus rose from $583 million in 1991 to $614 million in 1992, a record level and an increase of 5.3 percent. The increase is almost completely attributable to Japan's lifting of its last quotas on fresh citrus on April 1, 1991, under provisions of the 1988 U.S.-Japan Beef-Citrus Agreement.

Fresh grapefruit was the star performer; exports of fresh grapefruit to Japan alone were valued at $162 million, over 25 percent of total citrus exports. U.S. fresh lemon and navel orange exports to Japan also performed well. Lemon and navel orange exports to Japan were valued at $101 million and $84 million, respectively. Other notable increases from 1990 to 1991 were in shipments of fresh grapefruit to Canada and France, which increased from $30 million to $39 million, and $20 million to $28 million, respectively. The increase in grapefruit exports more than offset a decrease in navel orange exports caused by freezing weather in California. Much of the grapefruit is grown in Florida, which was not affected by the freeze. Canadian imports of U.S. fresh navel oranges fell dramatically from $92 million to $52 million; the usual exports from California were unable to meet the Canadian demand.

U.S. citrus imports rose from $89 million to $148 million, a record level and an increase of 66 percent. Much of the increase is attributable to the lifting of quarantine restrictions on fresh oranges from Mexico and Morocco, which had been restricted for several years because of the discovery of canker in some fruit. Spain enjoyed a bumper crop, and imports of fresh navel oranges from Spain, the world's largest citrus exporter, also soared. Imports of navel oranges increased from $3.6 million in 1990 to $45.0 million in 1991. The major suppliers were Mexico, Spain, and Morocco with $16.8 million, $10.8 million, and $10.6 million, respectively. U.S. imports of fresh Mexican limes increased from $7.8 million to $12.3 million from 1990 to 1991, supplying over half of U.S. consumption of fresh limes. The biggest single citrus import is canned mandarin oranges (or satsumas). Most satsuma imports came from Spain, and were valued at $38.2 million or over a quarter of all citrus imports. Imports of Spanish canned satsuma increased from $24.4 million in 1990 to $32.2 million in 1991. The product is used to make fruit salads and has become popular with U.S. consumers.

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Distilled spirits

U.S. exports of distilled spirits increased during 1990-91, following the trend of recent years. The value of exports increased from $254 million in 1990 to $279 million in 1991, or by nearly 10 percent. Japan continued to be the largest market, accounting for about 39 percent of U.S. exports. The EC, however, was the most rapidly growing market, increasing its 1990 level by about 20 percent in 1991.

U.S. imports of distilled spirits decreased by about 14 percent, from $1.5 billion in 1990 to $1.3 billion in 1991. This decline in imports mirrors a decline in apparent consumption. Although imports from the EC declined by about 10 percent, the EC continued to be the leading source of distilled spirits, accounting for about 60 percent of imports.

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Fruit and vegetable juices

Low world prices for frozen concentrated orange juice (FCOJ) and large domestic FCOJ shipments caused a sharp lowering of the U.S. merchandise trade deficit in fruit and vegetable juices. The merchandise trade deficit declined from $625 million in 1990 to $408 million in 1991. Imports declined from $1.0 billion in 1990 to $793 million in 1991, a decline of 21 percent. Exports increased modestly from $375 million in 1990 to $385 million in 1991, about 3 percent.

Much of the increase in exports is attributable to an increase in exports to Canada of FCOJ (because Florida had a large crop from the 1990-91 season), and to lower tariff rates under provisions of the United States-Canada Free-Trade Agreement, which affected some single strength fruit juices. The large decline in imports, mainly from Brazil, was also caused by large Florida shipments of FCOJ. Ad valorem equivalents of the specific tariff rates on FCOJ increase as import prices decrease. Thus, as import prices fell in 1991, ad valorem equivalents of the specific rates rose sharply. The combination of low world prices and high U.S. ad valorem duties made it unprofitable for FCOJ suppliers, especially Brazil and Mexico, to supply as much as they had the previous year. Imports in 1990 of FCOJ spiked to record levels as a December 1989 freeze greatly reduced Florida's output. Greater apple juice imports, especially from Argentina, Germany, Chile, and Austria were not enough to offset the sharply lower imports of FCOJ. U.S. apple production was reduced in 1991 by freezing weather along the Pacific coast.

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Hides, skins, and leather

U.S. exports of hides and skins totaled $1.3 billion in 1991, down 21 percent from 1990. Whole cattlehides accounted for 85 percent of such exports in 1991. The Republic of Korea, Japan, Mexico, and Taiwan are the largest markets for U.S. cattlehides, accounting for over 90 percent of such exports in 1991. In addition, the average cattlehide export unit value decreased by 11 percent, falling from $60.34 per hide in 1990 to $53.63 in 1991. Industry sources report that the decline in cattlehide prices is primarily due to a decrease in demand for leather.

During 1990-91, U.S. imports of leather decreased from $695 million to $583 million, or by 16 percent. According to industry sources, a decline in U.S. demand for shoe upper leather occurred as U.S. production of leather house slippers, and men's and women's dress and casual footwear declined. Unfavorable foreign exchange rates and higher U.S. duties on leather imports from Argentina[3] contributed to the decrease. U.S. imports from Argentina, the largest U.S. leather supplier, fell from $166 million in 1990 to $103 million in 1991, or by 38 percent.

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Sugar and other sweeteners

U.S. trade in sugar and sweeteners experienced a decline in imports while exports remained stable during 1991. U.S. imports of sugar and other sweeteners declined from $978 million in 1990 to $844 million in 1991. U.S. exports remained at the 1990 level of $362 million.

The decrease in U.S. imports of sugar in 1991 resulted from a decreased U.S. sugar tariff rate quota reflecting the recovery of the cane crop in Louisiana, which was freeze-damaged in 1989, and the sugar beet crop in the Red River Valley, which was reduced in 1990 by drought. Domestic cane sugar production rose from 2,851,000 short tons, raw value, in 1990 to 3,476,000 short tons, raw value, in 1991. Domestic beet sugar production increased from 3,484,000 short tons, raw value, in 1990 to 3,869,000 short tons, raw value, in 1991. As a consequence of the increase in domestic production, the U.S. sugar tariff-rate quota will allow 1.53 million short tons, raw value, to enter the United States at the first duty tier of 0.625 cents per pound (duty free for Caribbean Basin Initiative and Generalized System of Preferences (GSP) countries) during the 1991-92 quota year.[4]

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[3] Imports of most Argentine leather is subject to countervailing duties. In September 1990, the U.S. Department of Commerce directed the U.S. Customs Service to levy countervailing duties of approximately 15 percent on most types of leather imported from Argentina.

[4] The quota year will run from Oct. 1, 1991, to Sept. 30, 1992.

Dairy produce

The value of U.S. imports of dairy produce declined from $853 million in 1990 to $756 million in 1991, or about 11 percent. In 1991, about 55 percent of the value of dairy produce imports consisted of cheese, 40 percent consisted of casein and caseinates, and the remaining 5 percent consisted largely of frozen cream, condensed milk, butter and/or butter-oil, and lactalbumin. Most of the decline in the value of the imports of dairy produce was accounted for by a decline in the unit value of casein from $1.97 per pound to $1.58 per pound or about 20 percent. The unit value of cheese dropped from $1.45 per pound to $1.40 per pound or about 3 percent.

Casein, the principal protein in milk, is not produced from milk in the United States. All of the imports of casein are used as ingredients in processing food or feed in the United States. The drop in the unit values of imports of casein from 1990 to 1991 coincided with the 11-percent average annual decline in U.S. milk prices from $13.73/cwt in 1990 to $12.24/cwt in 1991. About one-fifth of imported cheese is further processed; the remaining 80 percent is used as natural cheese (cheese first produced directly from milk) for direct consumption without further processing. The larger percentage drop in the unit value of imports of casein (versus imports of cheese) would seem to suggest that prices for imports of dairy products used as ingredients for food processing (e.g., casein) are more responsive to changes in domestic milk prices than are prices of imports used for direct consumption (e.g., natural cheese).

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Table 11
Agricultural, animal, and vegetable products sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Percent
		Million dollars			
AG001	Certain miscellaneous live animals, meat, offals, and animal products:				
	Exports	1,302	1,446	144	11.1
	Imports	1,001	1,000	-1	-0.1
	Trade balance	301	446	145	48.2
AG002	Cattle and beef:				
	Exports	1,634	1,908	274	16.8
	Imports	2,647	2,646	-1	(3)
	Trade balance	-1,013	-738	275	27.1
AG003	Swine and pork:				
	Exports	298	315	17	5.7
	Imports	607	573	-34	-5.6
	Trade balance	-309	-258	51	16.5
AG004	Sheep and meat of sheep:				
	Exports	24	36	12	50.0
	Imports	40	37	-3	-7.5
	Trade balance	-16	-1	15	93.8
AG005	Poultry:				
	Exports	775	930	155	20.0
	Imports	28	28	0	0
	Trade balance	747	902	155	20.8
AG006	Fresh or chilled fish:				
	Exports	164	160	-4	-2.4
	Imports	592	615	23	3.9
	Trade balance	-428	-455	-27	-6.3
AG007	Frozen fish:				
	Exports	1,572	1,641	69	4.4
	Imports	1,377	1,467	90	6.5
	Trade balance	195	174	-21	-10.8
AG008	Fish canned, cured, or otherwise prepared, and live fish:				
	Exports	330	427	97	29.4
	Imports	682	759	77	11.3
	Trade balance	-352	-332	20	5.7
AG009	Shellfish:				
	Exports	754	852	98	13.0
	Imports	2,555	2,794	239	9.4
	Trade balance	-1,801	-1,942	-141	-7.8
AG010	Dairy produce:				
	Exports	282	325	43	15.2
	Imports	853	756	-97	-11.4
	Trade balance	-571	-431	140	24.5
AG011	Eggs:				
	Exports	99	140	41	41.4
	Imports	24	20	-4	-16.7
	Trade balance	75	120	45	60.0
AG012	Sugar and other sweeteners:				
	Exports	362	362	0	0
	Imports	978	844	-134	-13.7
	Trade balance	-616	-482	134	21.8
AG013	Animal feeds:				
	Exports	2,950	3,323	373	12.6
	Imports	378	399	21	5.6
	Trade balance	2,572	2,924	352	13.7

See footnotes at end of table.

Table 11--Continued
Agricultural, animal, and vegetable products sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Percent
		Million dollars			
AG014	Live plants:				
	Exports	104	106	2	1.9
	Imports	162	177	15	9.3
	Trade balance	-58	-71	-13	-22.4
AG015	Seeds:				
	Exports	262	289	27	10.3
	Imports	122	135	13	10.7
	Trade balance	140	154	14	10.0
AG016	Cut flowers:				
	Exports	30	34	4	13.3
	Imports	326	322	-4	-1.2
	Trade balance	-296	-288	8	2.7
AG017	Miscellaneous vegetable substances:				
	Exports	361	392	31	8.6
	Imports	514	552	38	7.4
	Trade balance	-153	-160	-7	-4.6
AG018	Fresh, chilled, or frozen vegetables:				
	Exports	777	883	106	13.6
	Imports	1,151	1,041	-110	-9.6
	Trade balance	-374	-158	216	57.8
AG019	Prepared or preserved vegetables, mushrooms, and olives:				
	Exports	976	972	-4	-0.4
	Imports	786	777	-9	-1.1
	Trade balance	190	195	5	2.6
AG020	Edible nuts:				
	Exports	1,019	1,067	48	4.7
	Imports	401	433	32	8.0
	Trade balance	618	634	16	2.6
AG021	Tropical fruit:				
	Exports	55	56	1	1.8
	Imports	1,062	1,132	70	6.6
	Trade balance	-1,007	-1,076	-69	-6.9
AG022	Citrus fruit:				
	Exports	583	614	31	5.3
	Imports	89	148	59	66.3
	Trade balance	494	466	-28	-5.7
AG023	Deciduous fruit:				
	Exports	477	517	40	8.4
	Imports	114	127	13	11.4
	Trade balance	363	390	27	7.4
AG024	Other fresh fruit:				
	Exports	405	414	9	2.2
	Imports	506	511	5	1.0
	Trade balance	-101	-97	4	4.0
AG025	Dried fruit other than tropical:				
	Exports	326	344	18	5.5
	Imports	33	34	1	3.0
	Trade balance	293	310	17	5.8
AG026	Frozen fruit:				
	Exports	42	48	6	14.3
	Imports	56	57	1	1.8
	Trade balance	-14	-9	5	35.7

See footnotes at end of table.

Table 11--Continued
Agricultural, animal, and vegetable products sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
AG027	Prepared or preserved fruit:				
	Exports	121	149	28	23.1
	Imports	324	359	35	10.8
	Trade balance	-203	-210	-7	-3.4
AG028	Coffee and tea:				
	Exports	95	102	7	7.4
	Imports	2,045	1,986	-59	-2.9
	Trade balance	-1,950	-1,884	66	3.4
AG029	Spices:				
	Exports	34	38	4	11.8
	Imports	216	223	7	3.2
	Trade balance	-182	-185	-3	-1.6
AG030	Cereals:				
	Exports	11,941	10,096	-1,845	-15.5
	Imports	314	354	40	12.7
	Trade balance	11,627	9,742	-1,885	-16.2
AG031	Milled grains, malts, and starches:				
	Exports	391	410	19	4.9
	Imports	103	99	-4	-3.9
	Trade balance	288	311	23	8.0
AG032	Oilseeds:				
	Exports	3,705	4,124	419	11.3
	Imports	179	119	-60	-33.5
	Trade balance	3,526	4,005	479	13.6
AG033	Animal or vegetable fats and oils:				
	Exports	1,172	1,123	-49	-4.2
	Imports	684	734	50	7.3
	Trade balance	488	389	-99	-20.3
AG034	Edible preparations:				
	Exports	1,440	1,941	501	34.8
	Imports	966	1,125	159	16.5
	Trade balance	474	816	342	72.2
AG035	Cocoa, chocolate, and confectionery:				
	Exports	328	345	17	5.2
	Imports	1,267	1,302	35	2.8
	Trade balance	-939	-957	-18	-1.9
AG036	Fruit and vegetable juices:				
	Exports	375	385	10	2.7
	Imports	1,000	793	-207	-20.7
	Trade balance	-625	-408	217	34.7
AG037	Nonalcoholic beverages, excluding fruit and vegetable juices:				
	Exports	117	154	37	31.6
	Imports	218	242	24	11.0
	Trade balance	-101	-88	13	12.9
AG038	Malt beverages:				
	Exports	139	169	30	21.6
	Imports	907	813	-94	-10.4
	Trade balance	-768	-644	124	16.1
AG039	Wine and certain other fermented beverages:				
	Exports	127	147	20	15.7
	Imports	924	920	-4	-0.4
	Trade balance	-797	-773	24	3.0

See footnotes at end of table.

Table 11--Continued
Agricultural, animal, and vegetable products sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
AG040	Distilled spirits:				
	Exports	254	279	25	9.8
	Imports	1,511	1,304	-207	-13.7
	Trade balance	-1,257	-1,025	232	18.5
AG041	Unmanufactured tobacco:				
	Exports	1,441	1,428	-13	-0.9
	Imports	583	736	153	26.2
	Trade balance	858	692	-166	-19.3
AG042	Cigars, and certain other manufactured tobacco:				
	Exports	279	342	63	22.6
	Imports	63	79	16	25.4
	Trade balance	216	263	47	21.8
AG043	Cigarettes:				
	Exports	4,761	4,232	-529	-11.1
	Imports	31	120	89	287.1
	Trade balance	4,730	4,112	-618	-13.1
AG044	Hides, skins, and leather:				
	Exports	2,372	1,967	-405	-17.1
	Imports	788	693	-95	-12.1
	Trade balance	1,584	1,274	-310	-19.6
AG045	Furskins:				
	Exports	205	154	-51	-24.9
	Imports	100	75	-25	-25.0
	Trade balance	105	79	-26	-24.8

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
[2] This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS import and export items for trade monitoring purposes.
[3] Less than 0.05 percent.

Source: Compiled from official statistics of the U.S. Department of Commerce.

CHAPTER 3
FOREST PRODUCTS

The 1990 trade surplus of $168 million in forest products improved dramatically to a surplus of $2.4 billion in 1991 (table 12). Total U.S. forest product exports increased by about 5 percent, from $18.7 billion during 1990 to $19.5 billion during 1991. U.S. imports of forest products decreased by 7 percent, from $18.5 billion in 1990 to $17.1 billion in 1991.

Historically, U.S. exports of pulp and wastepaper, logs, printed matter, and industrial papers account for about three-quarters of all forest product exports. U.S. exports of industrial papers (primarily composed of kraft linerboard) increased from $2.8 billion in 1990 to $3.3 billion in 1991. U.S. lumber exports also increased from $2.1 billion to $2.2 billion. Domestic printed matter exports also posted an increase; these exports increased from $3.1 billion to $3.5 billion. U.S. log and rough wood product exports decreased to $2.8 billion in 1991, down from $3.0 billion in 1990. Another strong export sector, pulp and waste paper, experienced a decline in export levels. The value of pulp and waste paper exports decreased from $4.1 billion during 1990 to $3.6 billion in 1991.

Historically, U.S. imports of newsprint and other printing/writing papers, pulp, and lumber account for about two-thirds of all forest product imports. U.S. imports of newsprint declined slightly from $4.2 billion in 1990 to $4.0 billion in 1991. Most of this decrease can be attributed to a decline in imports from Canada. U.S. imports of pulp decreased by about 25 percent to $2.2 billion in 1991. U.S. imports of lumber declined from $2.7 billion during 1990 to $2.6 billion during 1991. One area where U.S. imports increased was in printed matter.

U.S. Bilateral Trade

During 1991, U.S. bilateral trade in forest products amounted to $36.7 billion. Slightly more than one-third of this trade was accounted for by U.S. imports from Canada, valued at $11.7 billion. Canada supplied almost 68 percent of all U.S. forest product imports. The leading Canadian import commodities were newsprint, pulp, and softwood lumber. The second-leading source for U.S. imports was the EC. The EC supplied 10 percent of all U.S. forest product imports in 1991; these imports (primarily printed books, other printed materials, coated printing/writing papers, and other paper/paperboard) were valued at $1.6 billion.

During 1991, about two-thirds of all U.S. forest product exports found their destination in either Canada, Japan, the EC, or Mexico. Exports accounted for 91 percent of all forest product trade with Japan and amounted to $4.1 billion during 1991. About 71 percent of all forest product trade with the EC is also U.S. exports; these exports amounted to $4.1 billion during 1991. U.S. exports to Canada during 1991 amounted to $4.3 billion. The fourth-leading market for U.S. forest product exports was Mexico. During 1991, U.S. forest product exports to Mexico amounted to $1.6 billion, and accounted for about 79 percent of all forest product trade with Mexico.

Commodity Analyses

Wood and wood products[5]

The U.S. trade surplus in wood and wood products rose from $1.0 billion in 1990 to $1.1 billion in 1991, as the level of both imports and exports declined. Imports of wood and wood products declined by 4 percent, falling to $5.3 billion during 1991. Exports of these products decreased by 2 percent, to $6.4 billion during 1991.

U.S. imports of structural panel products accounted for most of the decrease in imports of all wood and wood products. Imports of such products fell by nearly 14 percent, decreasing from $1.0 billion during 1990 to $0.9 billion during 1991. The decline in U.S. structural panel consumption was the result of a sharp decline in the level of U.S. housing starts, combined with declining demand in the repair and remodeling and the materials-handling industries. U.S. housing starts declined by 15 percent in 1991 to about 1.0 million units. In addition, the repair and remodeling industry consumed about 2 percent less lumber during the period.

U.S. exports of wood and wood products decreased from $6.5 billion during 1990 to $6.4 billion in 1991. Declining exports of logs and rough wood products accounted for the decrease. However, U.S. lumber exports increased almost 4 percent, to $2.2 million, while millwork, containers, and wood tools and handles rose by 12 percent, 9 percent, and 8 percent, respectively, to reach $456 million in 1991.

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Pulp, paper, paperboard, and printed material[6]

The United States recorded a $1.3 billion surplus of trade in pulp, paper, paperboard, and printed material in 1991, up sharply from the $0.8 billion deficit posted during 1990. The 1991 surplus was achieved through an 8-percent increase in U.S. exports coupled with a 9-percent decrease in imports from 1990 to 1991. During 1991, the value of U.S. exports surpassed that of U.S. imports, for the first time since 1981.

U.S. imports of pulp, paper, paperboard, and printed material decreased from $13.1 billion in 1990 to $11.9 billion in the corresponding period of 1991, while U.S. exports of these products increased

[5] Wood and wood products include chs. 44, 45, and 46 of the *Harmonized Tariff Schedule of the United States*.

[6] Pulp, paper, paperboard, and printed material include chs. 47, 48, and 49 of the *Harmonized Tariff Schedules of the United States*.

Table 12
Forest products sector: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1990 and 1991[1]

Item	1990	1991	Change from 1990 to 1991 Amount	Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Canada	4,033	4,343	310	7.6
Japan	4,335	4,141	-194	-4.4
Mexico	1,337	1,612	275	20.5
Germany	768	822	54	7.0
United Kingdom	926	943	17	1.8
Taiwan	472	547	75	15.8
Republic of Korea	915	853	-62	-6.7
France	357	409	52	14.5
Italy	601	682	81	13.4
China	329	395	66	20.0
Singapore	121	145	24	19.8
All other	4,502	4,649	147	3.2
Total	18,696	19,541	845	4.5
EC-12	3,956	4,083	127	3.2
OPEC	560	572	12	2.1
ASEAN	451	537	86	19.0
CBERA	569	595	26	4.5
Eastern Europe	58	59	1	1.7
U.S. imports for consumption:				
Canada	12,662	11,702	-960	-7.5
Japan	444	400	-44	-9.9
Mexico	456	431	-25	-5.4
Germany	425	366	-59	-13.8
United Kingdom	476	451	-25	-5.2
Taiwan	398	354	-44	-11.0
Republic of Korea	124	115	-9	-7.2
France	212	229	17	8.0
Italy	247	231	-16	-6.4
China	223	264	41	18.3
Singapore	106	115	9	8.4
All other	2,755	2,487	-268	-9.8
Total	18,528	17,145	-1,383	-7.5
EC-12	1,782	1,635	-147	-8.2
OPEC	425	358	-67	-15.7
ASEAN	782	726	-56	-7.1
CBERA	74	56	-18	-24.3
Eastern Europe	16	11	-5	-31.2
U.S. merchandise trade balance:				
Canada	-8,629	-7,359	1,270	14.7
Japan	3,891	3,741	-150	-3.8
Mexico	881	1,181	300	34.0
Germany	343	456	113	32.9
United Kingdom	450	492	42	9.3
Taiwan	74	193	119	160.8
Republic of Korea	791	738	-53	-6.7
France	145	180	35	24.1
Italy	354	451	97	27.4
China	106	131	25	23.5
Singapore	15	30	15	100.0
All other	1,747	2,162	415	23.8
Total	168	2,396	2,228	1,326.2
EC-12	2,174	2,448	274	12.6
OPEC	135	214	79	58.5
ASEAN	-331	-189	142	42.9
CBERA	495	539	44	8.8
Eastern Europe	42	48	6	14.2

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Source: Compiled from official statistics of the U.S. Department of Commerce.

from $12.2 billion in 1990 to $13.2 billion in the corresponding period of 1991. Canada accounted for about 70 percent of all U.S. imports of pulp, paper, paperboard, and printed matter in 1991. However, imports of these products from Canada decreased slightly to $8.3 billion in 1991 from $9.2 billion in the corresponding period of 1990. U.S. exports to Canada increased from $3.1 billion in 1990 to $3.4 billion in 1991.

U.S. imports experiencing noticeable decreases during the period included the commodity groupings of pulp and newsprint. The value of U.S. imports of pulp and newsprint accounted for a significant portion of the decrease, declining from a combined $7.1 billion in 1990 to $6.2 billion in 1991. About three-quarters of this decrease is attributable to a decrease in the value of imports of Canadian pulp, and about one quarter to Canadian newsprint. The newsprint decline is mostly the result of a decrease in U.S. demand and an increase in U.S. capacity for newsprint. The pulp decline is attributable to a 27-percent decline in the value of imported Canadian pulp, from $641 per metric ton in 1990 to $471 per metric ton in 1991. However, the quantity of Canadian pulp imports remained steady at 3.9 million metric tons during both years. Canada also supplied about 87 percent of all U.S. pulp imports in 1990 and 1991. In 1991, Canada also supplied 99 percent of all U.S. imports of newsprint, and 51 percent of all domestic newsprint consumption.

U.S. exports experiencing noticeable increases included most major sectors, with the exception of pulp and wastepaper. The value of U.S. pulp and wastepaper exports decreased by 11 percent, from $4.1 billion during 1990 to $3.6 billion during 1991. From 1990 to 1991, the unit value of pulp exports dropped from $595 per metric ton to $494 per metric ton as the volume of pulp exports increased slightly from 5.5 million metric tons to 5.8 million metric tons. The value of pulp and wastepaper exports to most major exports markets (i.e., Japan, South Korea, Mexico, West Germany and Canada) experienced a decline from 1990 to 1991. Exports of industrial papers and paperboard increased by 18 percent, from $2.8 billion in 1990 to $3.3 billion in 1991. Kraftliner exports to China, and sanitary products and diapers to Germany and Canada, accounted for a large share of the increase in industrial paper and paperboard exports. U.S. exports of newsprint increased by 32 percent from 1990 to 1991, as newsprint producers sought foreign markets to replace lower sales in the sluggish domestic market. Exports of printing and writing paper also increased by 27 percent from 1990 to 1991. Increased domestic capacity of these papers, coupled with the effects of a sluggish U.S. economy, prompted producers to increase exports to our leading trade partners. U.S. exports of printed matter (books and other printed material) increased by 13 percent from 1990 to 1991, from $3.1 billion to $3.5 billion. Printed books, including textbooks, technical and professional books, and other miscellaneous printed material, accounted for the bulk of the increase.

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Table 13
Forest products sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Percent
		Million dollars			
AG046	Logs and rough wood products:				
	Exports	2,973	2,765	-208	-7.0
	Imports	305	301	-4	-1.3
	Trade balance	2,668	2,464	-204	-7.6
AG047	Lumber:				
	Exports	2,138	2,220	82	3.8
	Imports	2,671	2,644	-27	-1.0
	Trade balance	-533	-424	109	20.5
AG048	Moldings, millwork, and joinery:				
	Exports	327	366	39	11.9
	Imports	579	531	-48	-8.3
	Trade balance	-252	-165	87	34.5
AG049	Structural panel products:				
	Exports	770	748	-22	-2.9
	Imports	993	858	-135	-13.6
	Trade balance	-223	-110	113	50.7
AG050	Wooden containers:				
	Exports	70	76	6	8.6
	Imports	149	142	-7	-4.7
	Trade balance	-79	-66	13	16.5
AG051	Tools and tool handles of wood:				
	Exports	13	14	1	7.7
	Imports	75	76	1	1.3
	Trade balance	-62	-62	0	0
AG052	Miscellaneous articles of wood:				
	Exports	155	156	1	0.6
	Imports	378	394	16	4.2
	Trade balance	-223	-238	-15	-6.7
AG053	Cork and rattan:				
	Exports	38	35	-3	-7.9
	Imports	318	306	-12	-3.8
	Trade balance	-280	-271	9	3.2
AG054	Pulp and wastepaper:				
	Exports	4,056	3,616	-440	-10.8
	Imports	2,886	2,176	-710	-24.6
	Trade balance	1,170	1,440	270	23.1
AG055	Paper boxes and bags:				
	Exports	473	547	74	15.6
	Imports	225	246	21	9.3
	Trade balance	248	301	53	21.4
AG056	Industrial papers and paperboards:				
	Exports	2,817	3,314	497	17.6
	Imports	987	936	-51	-5.2
	Trade balance	1,830	2,378	548	29.9
AG057	Newsprint:				
	Exports	293	388	95	32.4
	Imports	4,247	3,979	-268	-6.3
	Trade balance	-3,954	-3,591	363	9.2
AG058	Printing and writing papers:				
	Exports	688	871	183	26.6
	Imports	2,283	2,100	-183	-8.0
	Trade balance	-1,595	-1,229	366	22.9
AG059	Certain specialty papers:				
	Exports	334	376	42	12.6
	Imports	450	433	-17	-3.8
	Trade balance	-116	-57	59	50.9

See footnotes at end of table.

Table 13--Continued
Forest products sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
AG060	Miscellaneous paper products:				
	Exports	479	577	98	20.5
	Imports	365	376	11	3.0
	Trade balance	114	201	87	76.3
AG061	Printed matter:				
	Exports	3,072	3,470	398	13.0
	Imports	1,616	1,649	33	2.0
	Trade balance	1,456	1,821	365	25.1

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
[2] This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS import and export items for trade monitoring purposes.

Source: Compiled from official statistics of the U.S. Department of Commerce.

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CHAPTER 4
FIBERS, TEXTILES, AND APPAREL

The trade deficit for this sector deepened by 1 percent in 1991 to $21.5 billion, barely less than the record $22.1 billion deficit of 1989. Total exports for the sector increased by 9.4 percent to $12.1 billion and imports increased by 4.0 percent to $33.6 billion (table 14). Most of the overall change in the sector's deficit can be attributed to a sharp decline in exports of the fiber segment (table 15).

The decline in exports registered by the fiber segment during 1991 was mostly caused by a 11-percent decline in cotton exports, to $2.5 billion. Comparatively high prices for U.S. cotton compared to prices for cotton from other world suppliers was one cause of the decline in these exports. Additionally, strong domestic demand, in a market to which imports are limited by quotas, restricted the supply of U.S. cotton available for export. Exports of manmade fibers increased by 8 percent, to $858 million. Although this increase is partly attributable to price increases, it also reflects the competitive position of the U.S. manmade fiber industry in world markets.

Growth of imports and exports for both the textile-products and the apparel segments nearly balanced. For textile products, the export increase of $552 million, to $5.5 billion, was close to the import increase of $560 million, to $6.8 billion. Consequently, the trade deficit for textile products deepened by $8 million. The products experiencing the most notable changes were broadwoven fabrics, for which imports increased 11 percent, to $3.0 billion, and carpets and rugs, which recorded an increase in exports of 28 percent, to $704 million. Expansion of trade in apparel was significantly affected by increased use of outward processing by U.S. apparel firms in which apparel parts are shipped abroad to be sewn into garments that are then returned to the United States as finished garments. Apparel exports increased by $737 million, to $3.2 billion, and imports increased by a nearly identical $732 million, to $26.3 billion. The deficit for apparel of $23.0 billion, improved negligibly by $5 million.

U.S. Bilateral Trade

The major contributors to the sector trade deficit are China and the Big Three apparel sources—Hong Kong, Korea, and Taiwan. The deficit for these countries together was $13.9 billion, or 65 percent of the 1991 deficit for the sector, and an increase of 2 percent from that of 1990. Some ASEAN countries increased shipments of apparel to the United States; the deficit in 1991 for this bloc was $3.2 billion, an increase of 4 percent from the figure for 1990. The deficit with the Caribbean Basin countries, another growing source of apparel imports, worsened by 31 percent to $251 million in 1991.

Trade balance changes were mixed for other significant trading partners of this sector. The deficit with the EC improved by 19 percent to $1.1 billion. Shifts in trade with Canada resulted in the surplus increasing by 6 percent to $845 million. Trade with Mexico, which had been exactly evenly balanced in 1990, netted a deficit of $70 million in 1991.

Commodity Analysis of Apparel

The U.S. deficit in the apparel sector, in 1991, remained unchanged from the 1990 level of $23.0 billion and now represents nearly one-third of the overall U.S. merchandise trade deficit. The stability of the apparel deficit resulted from a $737 million or 30-percent increase in apparel exports, offset by a $732 million or 3-percent increase in apparel imports from 1990 to 1991.

Production sharing operations of U.S. apparel companies in the Caribbean and Mexico had the greatest impact upon overall shifts in apparel trade from 1990 to 1991. About half the increase in the value of both apparel exports and imports in 1991 can be attributed to trade with member countries of the Caribbean Basin Initiative and Mexico. Apparel exports to Caribbean Basin countries rose $246 million or by 29 percent during 1991, while exports to Mexico rose $141 million or by 36 percent (see figure 3). Apparel imports from Caribbean Basin countries and Mexico increased by 28 percent each over the 1990 level, or by $547 million and $199 million, respectively (see figure 4).

U.S. apparel companies participated in these production sharing operations to lower their labor costs and, thus, compete with apparel imports. The operations involve sending U.S.-cut garment parts to plants, primarily in the Caribbean Basin and Mexico, for assembly and subsequent return to the United States under HTS heading 9802.00.80, formerly known as the 807 provision, which specifies a duty to be assessed only on the value-added abroad. Through these operations, U.S. companies have been able to realize lower labor costs and remain competitive in the production of high-volume, medium-priced, less fashion-sensitive apparel products, such as trousers, shirts, skirts, robes, nightwear, underwear, and body-supporting garments; all of which were commodity groups that dominated the large increase in trade with Caribbean Basin countries and Mexico from 1990 to 1991.

Also contributing to the overall rise in apparel exports were increased exports to Japan and the European Community. Apparel exports to Japan increased $127 million or by 43 percent from 1990 to 1991. This increase was attributable, in part, to efforts on the part of some U.S. apparel companies to develop their export markets as an alternative to the sluggish U.S. market, and to the fact that popular U.S. fashions are generally less expensive in Japan than European apparel. Although Japan now faces recession, its

Table 14
Fibers, textiles, and apparel sector: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1990 and 1991[1]

Item	1990	1991	Change from 1990 to 1991 Amount	Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Canada	1,533	1,735	202	13.1
Japan	1,184	1,195	11	0.9
Mexico	1,012	1,177	165	16.3
Germany	396	348	-48	-12.1
United Kingdom	418	424	6	1.4
Taiwan	197	195	-2	-1.0
Republic of Korea	609	495	-114	-18.7
France	157	173	16	10.1
Italy	363	338	-25	-6.8
China	446	520	74	16.5
Singapore	79	96	17	21.5
All other	4,685	5,430	745	15.8
Total	11,079	12,126	1,047	9.5
EC-12	2,180	2,170	-10	-0.4
OPEC	594	785	191	32.1
ASEAN	647	689	42	6.4
CBERA	1,260	1,566	306	24.2
Eastern Europe	85	74	-11	-12.9
U.S. imports for consumption:				
Canada	733	890	157	21.4
Japan	767	783	16	2.0
Mexico	1,012	1,247	235	23.2
Germany	467	482	15	3.2
United Kingdom	538	468	-70	-13.0
Taiwan	2,948	3,171	223	7.5
Republic of Korea	3,836	3,395	-441	-11.4
France	406	355	-51	-12.5
Italy	1,363	1,350	-13	-0.9
China	4,096	4,534	438	10.6
Singapore	630	611	-19	-3.0
All other	15,550	16,346	796	5.1
Total	32,346	33,632	1,286	4.0
EC-12	3,571	3,299	-272	-7.6
OPEC	860	840	-20	-2.3
ASEAN	3,737	3,901	164	4.3
CBERA	2,064	2,621	557	26.9
Eastern Europe	246	226	-20	-8.1
U.S. merchandise trade balance:				
Canada	800	845	45	5.6
Japan	417	412	-5	-1.1
Mexico	0	-70	-70	(2)
Germany	-71	-134	-63	-88.7
United Kingdom	-120	-44	76	63.3
Taiwan	-2,751	-2,976	-225	-8.1
Republic of Korea	-3,227	-2,900	327	10.1
France	-249	-182	67	26.9
Italy	-1,000	-1,012	-12	-1.2
China	-3,650	-4,014	-364	-9.9
Singapore	-551	-515	36	6.5
All other	-10,865	-10,916	-51	-0.4
Total	-21,267	-21,506	-239	-1.1
EC-12	-1,391	-1,129	262	18.8
OPEC	-266	-55	211	79.3
ASEAN	-3,090	-3,212	-122	-3.9
CBERA	-804	-1,055	-251	-31.2
Eastern Europe	-161	-152	9	5.5

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
[2] Not applicable.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Figure 3
U.S. apparel exports: Increases by market, 1990 to 1991

(Millions dollars)

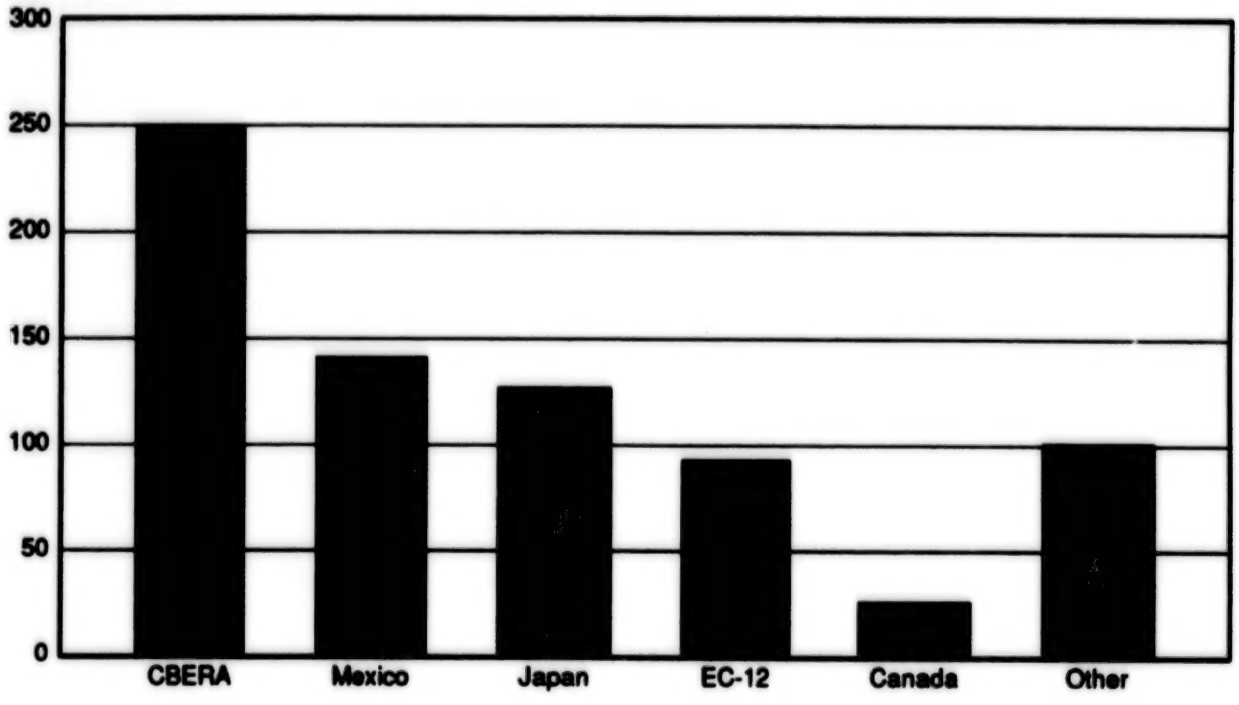
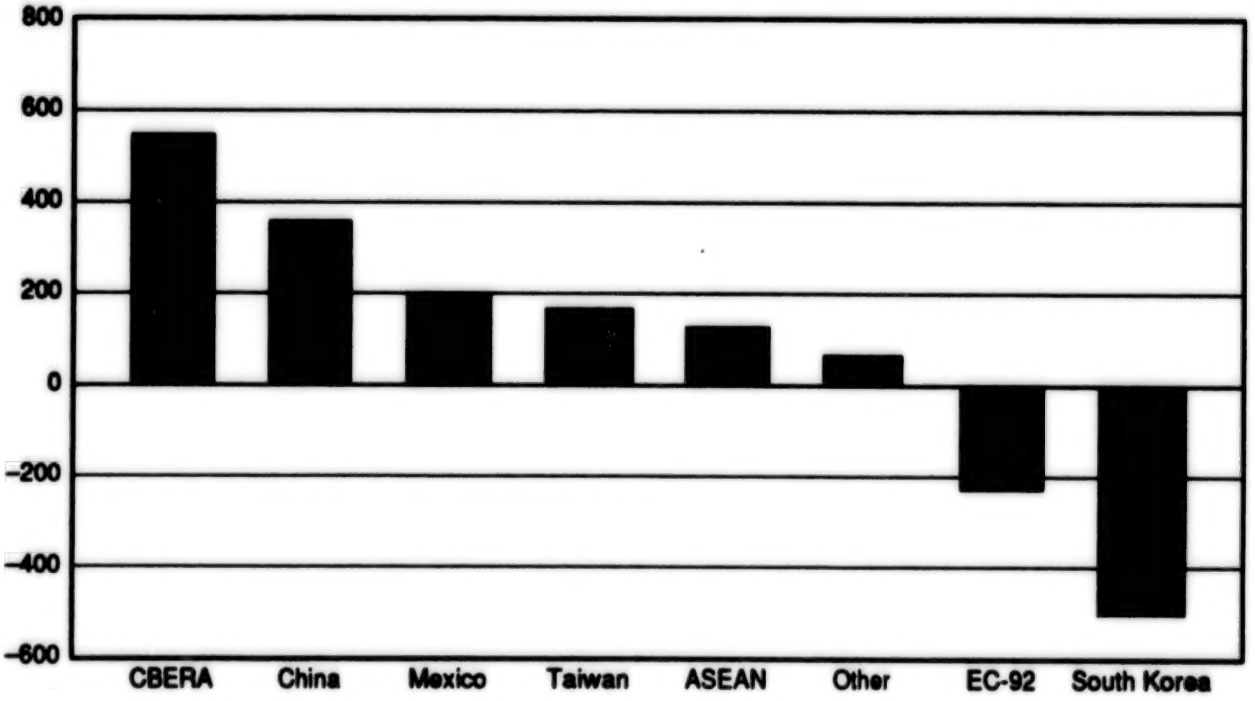


Figure 4
U.S. apparel imports: Changes by source, 1990 to 1991

(Millions dollars)



economy was relatively strong in 1991, and consumer spending was high. Apparel exports to the European Community in 1991 rose $93 million or by 24 percent over the 1990 level. This rise was due largely to a favorable shift in exchange rates between the United States and the European Community.

The small overall growth in U.S. apparel imports in 1991 reflected a soft U.S. retail market wrought by the ongoing U.S. economic recession. Aside from the Caribbean Basin countries and Mexico, the only large foreign supplier with any significant growth was Taiwan, whose shipments to the United States rose $167 million or by 7 percent. From 1990 to 1991, imports from the two largest U.S. suppliers, Hong Kong and China, remained relatively stable in terms of quantity, though imports from China grew by 10 percent in value terms, indicating a trading up to somewhat higher value-added apparel products.

One of the most significant shifts in apparel trade was the $502 million decline in imports from South Korea, the third-largest foreign supplier of apparel to the U.S. market. This decline was precipitated by rising production costs in South Korea, which have encouraged apparel companies there to either set up manufacturing facilities in lower cost countries or to transform their facilities to manufacture other higher technology and higher value-added products.

With respect to particular product categories, considerable trade shifts were noted in both hosiery and sweaters. U.S. imports of hosiery rose $128 million or by 69 percent from 1990 to 1991. Over two-thirds of this increase came from Taiwan and industry sources report that most of the imports consisted of women's and girls' leggings and stirrup pants, which are popular fashion items. U.S. imports of sweaters, on the other hand, dropped $199 million or by 9 percent from 1990 to 1991. Much of this drop can be attributed to the 27-percent decline in imports of man-made fiber sweaters. In 1990, antidumping duties were imposed by the United States on imports of these items from South Korea, Taiwan, and Hong Kong.

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Table 15
Fibers, textiles, and apparel sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
TX001	Textile fibers and waste:				
	Exports	3,641	3,398	-243	-6.7
	Imports	597	592	-5	-0.8
	Trade balance	3,044	2,806	-238	-7.8
TX002	Spun yarns:				
	Exports	306	348	42	13.7
	Imports	248	281	33	13.3
	Trade balance	58	67	9	15.5
TX003	Filament yarns:				
	Exports	776	751	-25	-3.2
	Imports	335	420	85	25.4
	Trade balance	441	331	-110	-24.9
TX004	Miscellaneous yarns:				
	Exports	107	107	0	0
	Imports	48	65	17	35.4
	Trade balance	59	42	-17	-28.8
TX005	Broadwoven fabrics:				
	Exports	1,233	1,321	88	7.1
	Imports	2,657	2,950	293	11.0
	Trade balance	-1,424	-1,629	-205	-14.4
TX006	Knit fabrics:				
	Exports	218	287	69	31.7
	Imports	144	183	39	27.1
	Trade balance	74	104	30	40.5
TX007	Miscellaneous fabrics:				
	Exports	150	174	24	16.0
	Imports	90	86	-4	-4.4
	Trade balance	60	88	28	46.7
TX008	Coated, covered, impregnated, or laminated textile fabrics:				
	Exports	287	313	26	9.1
	Imports	185	189	4	2.2
	Trade balance	102	124	22	21.6
TX009	Cordage, nets, and netting:				
	Exports	44	48	4	9.1
	Imports	137	127	-10	-7.3
	Trade balance	-93	-79	14	15.1
TX010	Certain textile articles and fabrics suitable for industrial use:				
	Exports	184	211	27	14.7
	Imports	135	142	7	5.2
	Trade balance	49	69	20	40.8
TX011	Miscellaneous textiles and articles:				
	Exports	526	600	74	14.1
	Imports	702	794	92	13.1
	Trade balance	-176	-194	-18	-10.2
TX012	Sacks and bags of textile materials:				
	Exports	15	16	1	6.7
	Imports	41	52	11	26.8
	Trade balance	-26	-36	-10	-38.5
TX013	Carpets and rugs:				
	Exports	551	704	153	27.8
	Imports	598	591	-7	-1.2
	Trade balance	-47	113	160	340.4

See footnotes at end of table.

Table 15--Continued
Fibers, textiles, and apparel sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
TX014	Home furnishings:				
	Exports	196	256	60	30.6
	Imports	751	726	-25	-3.3
	Trade balance	-555	-470	85	15.3
TX015	Men's and boys' suits and sports coats:				
	Exports	84	98	14	16.7
	Imports	508	561	53	10.4
	Trade balance	-424	-463	-39	-9.2
TX016	Men's and boys' coats and jackets:				
	Exports	50	69	19	38.0
	Imports	1,068	1,039	-29	-2.7
	Trade balance	-1,018	-970	48	4.7
TX017	Men's and boy's trousers:				
	Exports	519	653	134	25.8
	Imports	2,152	2,315	163	7.6
	Trade balance	-1,633	-1,662	-29	-1.8
TX018	Women's and girls' trousers:				
	Exports	141	209	68	48.2
	Imports	2,693	2,780	87	3.2
	Trade balance	-2,552	-2,571	-19	-0.7
TX019	Shirts and blouses:				
	Exports	361	454	93	25.8
	Imports	7,147	7,401	254	3.6
	Trade balance	-6,786	-6,947	-161	-2.4
TX020	Sweaters:				
	Exports	18	31	13	72.2
	Imports	2,116	1,917	-199	-9.4
	Trade balance	-2,098	-1,886	212	10.1
TX021	Women's and girls' suits, skirts, and coats:				
	Exports	175	204	29	16.6
	Imports	2,617	2,714	97	3.7
	Trade balance	-2,442	-2,510	-68	-2.8
TX022	Women's and girls' dresses:				
	Exports	51	65	14	27.5
	Imports	965	938	-27	-2.8
	Trade balance	-914	-873	41	4.5
TX023	Robes, nightwear, and underwear:				
	Exports	197	302	105	53.3
	Imports	1,146	1,293	147	12.8
	Trade balance	-949	-991	-42	-4.4
TX024	Hosiery:				
	Exports	73	98	25	34.2
	Imports	186	314	128	68.8
	Trade balance	-113	-216	-103	-91.2
TX025	Body-supporting garments:				
	Exports	182	231	49	26.9
	Imports	366	444	78	21.3
	Trade balance	-184	-213	-29	-15.8
TX026	Neckwear, handkerchiefs, and scarves:				
	Exports	17	20	3	17.6
	Imports	296	283	-13	-4.4
	Trade balance	-279	-263	16	5.7

See footnotes at end of table.

Table 15--Continued
Fibers, textiles, and apparel sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
TX027	Gloves, including gloves for sports:				
	Exports	158	165	7	4.4
	Imports	871	912	41	4.7
	Trade balance	-713	-747	-34	-4.8
TX028	Headwear:				
	Exports	64	89	25	39.1
	Imports	429	495	66	15.4
	Trade balance	-365	-406	-41	-11.2
TX029	Leather apparel and accessories:				
	Exports	75	96	21	28.0
	Imports	1,354	1,226	-128	-9.5
	Trade balance	-1,279	-1,130	149	11.7
TX030	Fur apparel and other fur articles:				
	Exports	54	61	7	13.0
	Imports	249	172	-77	-30.9
	Trade balance	-195	-111	84	43.1
TX031	Rubber, plastic, and coated-fabric apparel:				
	Exports	50	90	40	80.0
	Imports	119	121	2	1.7
	Trade balance	-69	-31	38	55.1
TX032	Nonwoven and related products:				
	Exports	370	381	11	3.0
	Imports	315	366	51	16.2
	Trade balance	55	15	-40	-72.7
TX033	Other wearing apparel:				
	Exports	204	276	72	35.3
	Imports	1,084	1,142	58	5.4
	Trade balance	-880	-866	14	1.6

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
[2] This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS import and export items for trade monitoring purposes.

Source: Compiled from official statistics of the U.S. Department of Commerce.

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CHAPTER 5
ENERGY AND CHEMICALS

During 1991, the U.S. trade deficit in chemicals, coal, petroleum, natural gas, and related products decreased to $25.8 billion, compared with a deficit of $38.9 billion for these products during 1990. The decrease in the deficit is attributable to a decrease of nearly 20 percent in the deficit for petroleum, natural gas, and related products (tables 16 and 17), and to a lesser extent, increased exports of chemicals.

The U.S. chemicals industry, excluding petroleum and energy-related sectors, increased its position as a leading world producer of both chemical intermediates and chemical products during 1990 and 1991. A trade surplus continued also, attaining a level of $14.7 billion during 1991, compared with $11.6 billion during 1990. A growth of 27.3 percent in the trade surplus of chemicals and related products was reached largely through increased exports and trade position increases in medicinal chemicals and other chemical product groups such as paints, inks, and related items and both natural and synthetic rubber.

For petroleum, natural gas, and related products, the trade deficit decreased to $40.5 billion during 1991, or a decrease of 20 percent from the level of $50.5 billion attained during 1990. Imports of products in this group decreased by 16 percent to $54.7 billion during 1991, while exports remained nearly level. Exports of these products to Canada provided the greatest absolute decrease, from $2.4 billion in 1990 to $1.5 billion in 1991, a change of 38 percent.

U.S. Bilateral Trade

The major sources of imports in the energy and chemical products sector during 1991 were Canada, Japan, and West Germany. Canada and Japan were the top two export markets, followed by Mexico. The European Community was the largest source of imports and market for exports of chemical products during 1991, making up 27 percent of total U.S. exports and 17 percent of total imports.

Trade in the energy and chemicals products sector reflected increased industrial and private consumer demands for imports of energy products. The three largest increases were crude petroleum, petroleum products, and natural gas and components. Imports of crude petroleum decreased by 5 percent in quantity to 2.1 billion barrels in 1991 compared with 1990. The price was artificially high in anticipation of a major supply disruption resulting from the Persian Gulf war.

Commodity Analyses

Crude petroleum

U.S. imports of crude petroleum, which account for approximately half of the U.S. trade deficit, accounted for more than 50 percent of domestic consumption of crude petroleum during 1991. U.S. imports began to increase in late 1985 when world crude petroleum prices plummeted as a result of an oversupply of crude on the world market. U.S. imports of crude petroleum decreased slightly from 2.2 billion barrels in 1990 to 2.1 billion barrels in 1991. Saudi Arabia, Nigeria, and Venezuela, all members of OPEC, were principal sources of imports. Mexico was the second-leading source and the largest non-OPEC source of U.S. crude imports in 1991 as Mexico increased shipments to the U.S. market in response to the shutdown of Kuwaiti wells resulting from the Persian Gulf War.

The per-barrel price of crude petroleum imports decreased from $19.72 in 1990 to $17.55 in 1991. The price in 1991 was artificially high in anticipation of a major supply disruption resulting from the Persian Gulf war. No such supply disruption took place as other OPEC nations and Mexico increased production in order to compensate for the loss of production from Kuwaiti wells.

U.S. exports of crude petroleum are prohibited except as approved by the U.S. Government. Canada has been the only consistent market for these exports as part of a commercial exchange agreement between U.S. and Canadian refiners, and approved by the Secretary of the Department of Energy. In 1987, small shipments of Alaskan North Slope crude petroleum were approved for export to the Republic of Korea, Taiwan, and Australia. U.S. exports decreased from 7.2 million barrels in 1990 to 1.7 million barrels in 1991. Canada accounted for about 90 percent of these U.S. exports.

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Petroleum products

The value of U.S. imports of petroleum products decreased from $16.1 billion in 1990 to $12.6 billion in 1991. Venezuela and Algeria, both members of OPEC, were the first- and third-leading import sources of petroleum products; Canada was the second-largest supplier. This decrease is attributed to the decrease in the per-barrel price of crude petroleum. U.S. refineries are operating at over 90-percent capacity in order to supply more of the domestic demand for petroleum products; imports account for any remaining demand.

The value of U.S. exports of petroleum products increased slightly, from $7.3 billion in 1990 to $7.5 billion in 1991. Canada, Mexico, the Netherlands, and Japan remained the major U.S. markets for these exports.

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Electrical energy

Most U.S. utilities do not use foreign sources to provide major portions of their electricity supply. Electricity trade plays a varying role from region to region and fluctuates from year to year as a result of changing hydroelectric conditions. Canada is the primary U.S. electricity trading partner. Trade in

Table 16
Chemicals and related products sector: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1990 and 1991[1]

Item	1990	1991	Change from 1990 to 1991 Amount	Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Canada	7,824	8,490	666	8.5
Japan	4,852	5,324	472	9.7
Mexico	3,032	3,452	420	13.8
Germany	1,967	2,075	108	5.4
United Kingdom	1,628	1,737	109	6.6
Taiwan	1,517	1,873	356	23.4
Republic of Korea	1,699	1,707	8	0.4
France	1,159	1,165	6	0.5
Italy	859	961	102	11.8
China	1,061	1,677	616	58.0
Singapore	627	703	76	12.1
All other	16,438	17,911	1,473	8.9
Total	42,663	47,075	4,412	10.3
EC-12	11,037	11,789	752	6.8
OPEC	1,481	1,779	298	20.1
ASEAN	1,687	1,803	116	6.8
CBERA	1,133	1,194	61	5.3
Eastern Europe	111	126	15	13.5
U.S. imports for consumption:				
Canada	5,753	5,859	106	1.8
Japan	3,986	4,234	248	6.2
Mexico	1,006	1,084	78	7.7
Germany	3,496	3,609	113	3.2
United Kingdom	2,241	2,382	141	6.2
Taiwan	1,339	1,360	21	1.5
Republic of Korea	650	586	-64	-9.8
France	1,650	1,812	162	9.8
Italy	1,005	1,045	40	3.9
China	723	880	157	21.7
Singapore	425	533	108	25.4
All other	8,818	8,960	142	1.6
Total	31,092	32,344	1,252	4.0
EC-12	10,705	11,104	399	3.7
OPEC	628	622	-6	-0.9
ASEAN	1,357	1,486	129	9.5
CBERA	652	705	53	8.1
Eastern Europe	137	148	11	8.0
U.S. merchandise trade balance:				
Canada	2,071	2,631	560	27.0
Japan	866	1,090	224	25.8
Mexico	2,026	2,368	342	16.8
Germany	-1,529	-1,534	-5	-0.3
United Kingdom	-613	-645	-32	-5.2
Taiwan	178	513	335	188.2
Republic of Korea	1,049	1,121	72	6.8
France	-491	-647	-156	-31.7
Italy	-146	-84	62	42.4
China	338	797	459	135.7
Singapore	202	170	-32	-15.8
All other	7,620	8,951	1,331	17.4
Total	11,571	14,731	3,160	27.3
EC-12	332	685	353	106.3
OPEC	853	1,157	304	35.6
ASEAN	330	317	-13	-3.9
CBERA	481	489	8	1.6
Eastern Europe	-26	-22	4	15.3

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 17
Energy-related products sector: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1990 and 1991[1]

Item	1990	1991	Change from 1990 to 1991 Amount	Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Canada	2,449	1,510	-939	-38.3
Japan	1,617	1,478	-139	-8.5
Mexico	866	940	74	8.5
Germany	125	159	34	27.2
United Kingdom	433	434	1	0.2
Taiwan	580	495	-85	-14.6
Republic of Korea	832	744	-88	-10.5
France	583	769	186	31.9
Italy	758	804	46	6.0
China	11	64	53	481.8
Singapore	268	322	54	20.1
All other	5,653	6,402	750	13.3
Total	14,175	14,121	-53	-0.4
EC-12	4,307	4,578	271	6.2
OPEC	457	647	190	41.5
ASEAN	407	561	154	37.8
CBERA	909	933	24	2.6
Eastern Europe	168	154	-14	-8.3
U.S. imports for consumption:				
Canada	10,077	10,466	389	3.8
Japan	104	113	9	8.6
Mexico	5,200	4,639	-561	-10.7
Germany	75	71	-4	-5.3
United Kingdom	2,082	1,456	-626	-30.0
Taiwan	0	0	0	0.0
Republic of Korea	25	45	20	80.0
France	385	332	-53	-13.7
Italy	537	456	-81	-15.0
China	669	608	-61	-9.1
Singapore	204	92	-112	-54.9
All other	45,293	36,374	-8,919	-19.6
Total	64,851	54,652	-9,999	-15.5
EC-12	4,658	3,278	-1,380	-29.6
OPEC	33,070	27,874	-5,196	-15.7
ASEAN	1,629	1,064	-565	-34.6
CBERA	1,357	1,403	46	3.3
Eastern Europe	134	2	-132	-98.5
U.S. merchandise trade balance:				
Canada	-7,628	-8,956	-1,328	-17.4
Japan	1,513	1,365	-148	-9.7
Mexico	-4,334	-3,699	635	14.6
Germany	50	88	38	76.0
United Kingdom	-1,649	-1,022	627	38.0
Taiwan	580	495	-85	-14.6
Republic of Korea	807	699	-108	-13.3
France	198	437	239	120.7
Italy	221	348	127	57.4
China	-658	-544	114	17.3
Singapore	64	230	166	259.3
All other	-39,640	-29,972	9,668	24.3
Total	-50,676	-40,531	9,945	19.7
EC-12	-351	1,300	1,651	470.3
OPEC	-32,613	-27,227	5,386	16.5
ASEAN	-1,222	-503	719	58.8
CBERA	-448	-470	-22	-4.9
Eastern Europe	34	152	118	347.0

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Source: Compiled from official statistics of the U.S. Department of Commerce.

electricity is conducted over the existing interconnected transmission systems. Trade with Quebec uses direct current lines. The Provinces of New Brunswick, Ontario, Manitoba, and Saskatchewan are interconnected with the United States in an alternating current grid and are synchronized with utilities in the eastern U.S. power grid. Alberta and British Columbia are synchronized with U.S. utilities operating in the western power grid and sell electricity to the western portion of the United States.

The value of U.S. imports of electricity increased from $462.5 million in 1990 to $486.7 million in 1991. U.S. exports decreased very significantly from $491.1 million in 1990 to $53.7 million in 1991 as a result of new hydropower stations in Canada becoming operational.

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Benzenoid intermediate chemicals

U.S. imports of benzenoid intermediate chemicals increased from a value of $2.3 billion during 1990, to $2.4 billion during 1991, or by 5 percent. The principal reason for this increase was an increase in imports of benzenoid specialty chemicals from $1.8 billion during 1990, to $2.1 billion during 1991. The increase in imports of certain of these specialty chemicals, such as pharmaceutical intermediate chemicals and synthetic dye and pigment intermediates, was attributable to an increase in related-party transactions between either foreign parent companies and their U.S. subsidiaries, or U.S. multinational chemical firms and their foreign subsidiaries, a continuing trend reflecting the global character of the chemical industry. Benzenoid commodity chemicals, used as precursors in the manufacture of plastics resins, adhesives, and synthetic fibers, and as feedstocks for producing other intermediate chemicals, decreased from $485 million during 1990, to $357 million during 1991. The principal reason for this decrease was a decrease in the cost of raw materials to produce these petroleum-derived chemicals. The quantity of imports of these latter products decreased by 5 percent over 1990-91, while the unit value decreased by 22 percent.

The principal sources of imports of benzenoid commodity chemicals by value during 1991 were Canada (54 percent), the Netherlands (25 percent), France (5 percent), Japan (2 percent), and Argentina (2 percent). The principal sources of imports of benzenoid specialty chemicals by value during this same period were Germany (14 percent), Japan (14 percent), the United Kingdom (13 percent), Italy (12 percent), Switzerland (8 percent), France (7 percent), Ireland (6 percent), and Canada (5 percent).

U.S. exports of benzenoid intermediate chemicals increased from a value of $4.4 billion during 1990, to $4.8 billion during 1991. An increase of 12 percent in the value of exports of benzenoid specialty chemicals was the major reason for this change.

The principal markets for benzenoid commodity chemicals by value during 1991 were Taiwan (29 percent), the Netherlands (13 percent), China (9 percent), Canada (8 percent), Japan (7 percent), Korea (7 percent), and Mexico (5 percent). The principal markets for exports of benzenoid specialty chemicals by value during this period were Canada (11 percent), Belgium (11 percent), Japan (11 percent), the Netherlands (7 percent), Mexico (6 percent), and Korea (5 percent).

The U.S. trade balance for benzenoid chemicals increased by 14 percent over 1990-91, from $2.1 billion to $2.4 billion. The largest increase over this period occurred in the trade balance for benzenoid specialty chemicals, from $1.1 billion during 1990, to $1.4 billion during 1991. The increased unit value of exports of these products was primarily responsible for the change.

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Miscellaneous organic chemicals

U.S. imports of miscellaneous organic chemicals increased from a value of $2.7 billion during 1990, to $2.9 billion during 1991, or by 7.1 percent. This trend is attributable to some continued growth in the U.S. economy during the first half of 1991. High-valued imports, consisting of pharmaceutical intermediates, additives for plastics, and miscellaneous chemicals were supplied from Singapore, amounting to a total of $403 million during 1991, compared with $297 million during 1990.

U.S. exports of miscellaneous organic chemicals increased from a value of $4.3 billion in 1990, to $4.7 billion in 1991. The increase in value was accounted for by a gradual shift towards more basic commodity chemicals and intermediates to nearly all countries. Many exports are to subsidiaries or firms licensed to produce pharmaceuticals, dyes, pesticides, and other products from these chemicals. This trend has led overall to only small increases in the average unit value of exports by about 6 percent from 1990 to 1991. However, decreases in exports to Brazil of fuel-grade ethanol for Brazil's Alcohol Fuel Program, tended to offset any major increases in exports. Exports to Brazil dropped by 32 percent in value from $271 million in 1990 to $184 million in 1991.

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Miscellaneous rubber or plastic products

U.S. exports of these products increased from $1.7 billion during 1990 to 2.0 billion during 1991. This 18-percent increase in export value was mainly the result of increased exports to Canada that went from $677 million to $757 million, and Mexico, which went from $301 million to $390 million during the period covered. Most of these items are miscellaneous plastic products and rubber gaskets, washers, and other seals.

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Pneumatic tires and tubes

U.S. exports of these products increased from $1,097 million during 1990 to $1,215 million during 1991. This 11-percent increase in export value was mainly the result of increased exports to Mexico, Canada, and Saudi Arabia. U.S. exports of these products have increased every year since 1987. Acquisitions and mergers of major domestic tire companies have led to a highly concentrated and efficient U.S. tire industry. A reduction in U.S. tire imports and a steadily increasing level of U.S. exports reflect this development.

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Pharmaceuticals

U.S. imports of pharmaceuticals, in bulk and in finished dosage form, increased in value from $3.9 billion during 1990 to $4.9 billion in 1991, or by 27 percent. The quantity of U.S. imports of these products, however, increased by only 3 percent during this period, from 2.9 billion kilograms to 3.0 billion kilograms. Imports of bulk active ingredients accounted for over 50 percent of the total by value, whereas imports of finished dosage form products (pharmaceutical preparations) accounted for about 30 percent, reflecting the continuing trend of many developed countries to import bulk product rather than pharmaceutical preparations. The major sources of U.S. pharmaceutical imports in 1991, by value, were Germany (18 percent), the United Kingdom (15 percent), and Japan (11 percent).

Antibiotics, traditionally a therapeutic class with a relatively low average unit value, accounted for about 80 percent of total pharmaceutical imports in terms of quantity during 1991, but only 20 percent by value. The average unit value of the antibiotic imports in 1991 was 41 cents per kilogram. Although decreasing in quantity by about 2 percent during 1990-91, U.S. imports of antibiotics increased in value by 34 percent in this period, from $738 million to $986 million. The three largest sources of U.S. imports of antibiotics during 1991 were the United Kingdom (26 percent), Switzerland (21 percent), and Italy (19 percent). Industry sources indicate that a primary reason for the relatively large share of imports accounted for by antibiotics is the continued high domestic demand for these products.

U.S. imports of pharmaceuticals, other than antibiotics, were valued at $3.9 billion during 1991, increasing from $3.2 billion in 1990, or by 22 percent. In terms of quantity, these imports increased by 41 percent, or from 445 million kilograms to 628 million kilograms. The average unit value of these imports in 1991 was $6.23 per kilogram. The three largest sources of pharmaceuticals, excluding antibiotics, by value in 1991 were Germany (16 percent), the United Kingdom (15 percent), and Switzerland (13 percent).

In general, bulk high-value pharmaceuticals accounted for a large share of the value of total U.S. pharmaceutical imports. The multinational pharmaceutical industry is increasingly focusing production of bulk high-value products at individual sites worldwide, given constraints such as the specialized equipment often needed to manufacture such products, a reluctance by individual firms to duplicate both the capital expenditures associated with the construction of multiple production facilities and the costs associated with ensuring that such facilities comply with national regulatory requirements (including environmental requirements), and, in many cases, the need to meet requirements of cross-licensing agreements. Related-party transactions account for a significant share of these imports, in that the importer is often either the patent holder or the U.S. licensee, generally precluding importation of the products by other companies. Although most, if not all, of the major pharmaceutical companies have production facilities in the United States, producing the majority of pharmaceuticals consumed in the United States, the above-mentioned constraints result in many of these companies importing certain products in bulk form from sites outside the United States and formulating them domestically in order to supply the U.S. market.

The value of U.S. exports of pharmaceuticals increased by 13 percent to $5.8 billion in 1991 from $5.1 billion in 1990. The quantity of such exports, however, decreased by 22 percent, from 3.1 billion kilograms to 2.4 billion kilograms. In 1991, antibiotics accounted for 91 percent of the total by quantity and 24 percent by value. The average unit value of exports of antibiotics in 1991 was 63 cents per kilogram, compared with $20.18 per kilogram for all other medicinal chemicals. U.S. exports of antibiotics in 1991 amounted to 2.2 billion kilograms, valued at $1.4 million, compared with 2.8 billion kilograms, valued at $1.3 billion in 1990. U.S. exports of pharmaceuticals, other than antibiotics, in 1991 amounted to 219 million kilograms, valued at $4.4 million, compared with 317 million kilograms, valued at $3.9 billion in 1990. Although the quantity of these products imported during 1990-91 declined by about 30 percent, the value increased by about 14 percent. As was the case with imports, this relationship indicates that the product mix in 1991 consisted of a larger share of high-value pharmaceuticals than the mix in 1990. The three largest foreign markets by value for total pharmaceutical exports in 1991 were Japan (16 percent), Germany (11 percent), and Canada (11 percent).

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Polyethylene resins in primary forms

The trade balance of polyethylene resins widened to $1 billion in 1991 as the value of U.S. imports decreased by 15 percent and exports increased by

32 percent. U.S. exports of these products amounted to $1.46 billion in 1991 while imports were $448 million.

Indonesia, Taiwan, China, Colombia, and Hong Kong accounted for the largest increases in U.S. exports. Many developing countries in East Asia and South America have provided good export markets for U.S. polyethylene because they do not have their own production facilities or their facilities cannot meet demand. New polyethylene production facilities are expected to become operational throughout the world in the next few years, which could limit future U.S. exports.

The decrease in U.S. imports can be attributed to weak polyethylene prices and market conditions in the United States due to the economic recession and adequate supply. The majority of U.S. imports were from Canada, which accounted for over 75 percent of the total.

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Polypropylene resins in primary forms

U.S. polypropylene exports and imports continued their increasing trends in 1991 as exports reached $788 million and imports reached $64 million. The quantity of polypropylene imports doubled to 65 million kilograms in 1991 compared to 1990.

Worldwide capacity of polypropylene has continually increased in recent years, especially in the Far East and Latin America, which has affected U.S. trade. U.S. exports remained strong to Canada, Hong Kong, and China while slowing to Indonesia, Philippines, and India in 1991.

The unit value of U.S. imports declined an average of 16.2 percent which reflects excess global capacity and weak prices during 1991. Western Europe was marked by reported 20-percent excess capacity in 1991. In addition, Latin America is expected to become a net exporter by the end of 1992 if planned polypropylene facilities become operational.

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Catalytic preparations

U.S. exports of catalytic preparations grew markedly from 1990 to 1991, increasing by 16 percent. These exports rose from $471 million in 1990 to $548 million in 1991. With the exception of Mexico, the most important U.S. markets for catalytic preparations were industrialized countries including Canada, Japan, Western Europe, and South Korea. However, exports to many developing nations were also significant. U.S. exports of catalysts have been increasing principally because of burgeoning world-wide demand for catalysts in environmental applications, especially for use in catalytic converters in automobiles.

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Fertilizers

U.S. imports of fertilizers increased approximately 2 percent in value, to $1.5 billion during 1991. This increase may be partially explained by a variety of factors.

Nitrogenous fertilizer imports from Trinidad and Tobago have increased since the establishment of new ownership of production facilities in that country. Nitrogenous fertilizer imports from Germany, primarily urea, have increased, perhaps due to importers understanding that the conjoined antidumping duties originally set at 44.8 percent ad valorem on material from former East Germany were reduced to zero, as a result of the German reunification in late 1990. Fertilizer imports from the former Soviet Union/CIS may have increased due to some need for hard currency and newly emerging trade patterns.

U.S. fertilizer exports increased about 16 percent from approximately $2.7 billion during 1990 to $3.1 billion during 1991. The major portion of this increase can be attributed to a rise in nitrogenous and phosphatic fertilizer exports to China during 1991. Further, significant increases in phosphatic fertilizer exports to India, the former Soviet Union/CIS, and Brazil also contributed to the increase.

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Table 18
Energy and chemicals sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Percent
		Million dollars			
CH001	Electrical energy:				
	Exports	491	54	-437	-89.0
	Imports	463	487	24	5.2
	Trade balance	28	-433	-461	-1,646.4
CH002	Nuclear materials:				
	Exports	1,068	1,120	52	4.9
	Imports	1,015	1,092	77	7.6
	Trade balance	53	28	-25	-47.2
CH003	Coal and other carbonaceous materials:				
	Exports	4,608	4,721	113	2.5
	Imports	288	309	21	7.3
	Trade balance	4,320	4,412	92	2.1
CH004	Coal chemicals:				
	Exports	396	268	-128	-32.3
	Imports	296	144	-152	-51.4
	Trade balance	100	124	24	24.0
CH005	Crude petroleum:				
	Exports	183	35	-148	-80.9
	Imports	43,833	37,374	-6,459	-14.7
	Trade balance	-43,650	-37,339	6,311	14.5
CH006	Petroleum products:				
	Exports	7,302	7,461	159	2.2
	Imports	16,138	12,578	-3,560	-22.1
	Trade balance	-8,836	-5,117	3,719	42.1
CH007	Natural gas and components:				
	Exports	493	700	207	42.0
	Imports	3,229	3,358	129	4.0
	Trade balance	-2,736	-2,658	78	2.9
CH008	Major primary olefins:				
	Exports	209	222	13	6.2
	Imports	265	188	-77	-29.1
	Trade balance	-56	34	90	160.7
CH009	Other olefins:				
	Exports	263	285	22	8.4
	Imports	14	19	5	35.7
	Trade balance	249	266	17	6.8
CH010	Benzene, toluene, and mixed xylenes:				
	Exports	276	105	-171	-62.0
	Imports	124	196	72	58.1
	Trade balance	152	-91	-243	-159.9
CH011	Benzenoid commodity chemicals:				
	Exports	1,507	1,381	-126	-8.4
	Imports	485	357	-128	-26.4
	Trade balance	1,022	1,024	2	0.2
CH012	Benenoid specialty chemicals:				
	Exports	2,884	3,431	547	19.0
	Imports	1,811	2,066	255	14.1
	Trade balance	1,073	1,365	292	27.2
CH013	Miscellaneous organic chemicals:				
	Exports	4,303	4,744	441	10.2
	Imports	2,672	2,862	190	7.1
	Trade balance	1,631	1,882	251	15.4

See footnotes at end of table.

Table 18--Continued
Energy and chemicals sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
CH014	Selected inorganic chemicals and elements:				
	Exports	842	893	51	6.1
	Imports	1,738	1,573	-165	-9.5
	Trade balance	-896	-680	216	24.1
CH015	Inorganic acids:				
	Exports	109	129	20	18.3
	Imports	179	168	-11	-6.1
	Trade balance	-70	-39	31	44.3
CH016	Salts and other inorganic chemicals:				
	Exports	2,109	2,241	132	6.3
	Imports	1,309	1,341	32	2.4
	Trade balance	800	900	100	12.5
CH017	Chlor-alkali chemicals:				
	Exports	800	912	112	14.0
	Imports	199	177	-22	-11.1
	Trade balance	601	735	134	22.3
CH018	Industrial gases:				
	Exports	84	95	11	13.1
	Imports	36	38	2	5.6
	Trade balance	48	57	9	18.8
CH019	Fertilizers:				
	Exports	2,697	3,138	441	16.4
	Imports	1,513	1,536	23	1.5
	Trade balance	1,184	1,602	418	35.3
CH020	Certain inorganic pigments:				
	Exports	725	682	-43	-5.9
	Imports	563	551	-12	-2.1
	Trade balance	162	131	-31	-19.1
CH021	Synthetic organic pigments:				
	Exports	214	200	-14	-6.5
	Imports	208	249	41	19.7
	Trade balance	6	-49	-55	-916.7
CH022	Synthetic dyes and couplers:				
	Exports	187	168	-19	-10.2
	Imports	459	497	38	8.3
	Trade balance	-272	-329	-57	-21.0
CH023	Synthetics tanning agents:				
	Exports	11	13	2	18.2
	Imports	3	4	1	33.3
	Trade balance	8	9	1	12.5
CH024	Natural tanning and dyeing materials:				
	Exports	11	12	1	9.1
	Imports	51	59	8	15.7
	Trade balance	-40	-47	-7	-17.5
CH025	Photographic chemicals and preparations:				
	Exports	245	287	42	17.1
	Imports	370	405	35	9.5
	Trade balance	-125	-118	7	5.6
CH026	Pesticide products and formulations:				
	Exports	1,493	1,427	-66	-4.4
	Imports	626	645	19	3.0
	Trade balance	867	782	-85	-9.8

See footnotes at end of table.

Table 18--Continued
Energy and chemicals sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Percent
		Million dollars			
CH027	Adhesives and glues:				
	Exports	217	229	12	5.5
	Imports	89	93	4	4.5
	Trade balance	128	136	8	6.3
CH028	Medicinal chemicals, except antibiotics:				
	Exports	3,870	4,418	548	14.2
	Imports	3,207	3,919	712	22.2
	Trade balance	663	499	-164	-24.7
CH029	Antibiotics:				
	Exports	1,262	1,380	118	9.4
	Imports	738	986	248	33.6
	Trade balance	524	394	-130	-24.8
CH030	Essential oils and other flavoring materials:				
	Exports	580	615	35	6.0
	Imports	476	490	14	2.9
	Trade balance	104	125	21	20.2
CH031	Perfumes, cosmetics, and toiletries:				
	Exports	852	1,075	223	26.2
	Imports	638	716	78	12.2
	Trade balance	214	359	145	67.8
CH032	Soaps, detergents, and surface-active agents:				
	Exports	775	936	161	20.8
	Imports	321	358	37	11.5
	Trade balance	454	578	124	27.3
CH033	Fatty chemicals:				
	Exports	202	258	56	27.7
	Imports	74	79	5	6.8
	Trade balance	128	179	51	39.8
CH034	Miscellaneous chemical specialties:				
	Exports	650	749	99	15.2
	Imports	340	372	32	9.4
	Trade balance	310	377	67	21.6
CH035	Paints, inks, and related items:				
	Exports	761	873	112	14.7
	Imports	239	277	38	15.9
	Trade balance	522	596	74	14.2
CH036	Explosives and propellant powders:				
	Exports	157	169	12	7.6
	Imports	156	178	22	14.1
	Trade balance	1	-9	-10	-1,000.0
CH037	Polyethylene resins in primary forms:				
	Exports	1,106	1,460	354	32.0
	Imports	528	448	-80	-15.2
	Trade balance	578	1,012	434	75.1
CH038	Polypropylene resins in primary forms:				
	Exports	730	788	58	7.9
	Imports	38	64	26	68.4
	Trade balance	692	724	32	4.6
CH039	PVC resins in primary forms:				
	Exports	419	549	130	31.0
	Imports	67	54	-13	-19.4
	Trade balance	352	495	143	40.6

See footnotes at end of table.

Table 18--Continued
Energy and chemicals sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
CH040	Styrene polymers in primary forms:				
	Exports	516	550	34	6.6
	Imports	138	132	-6	-4.3
	Trade balance	378	418	40	10.6
CH041	PET and other polyester resins:				
	Exports	339	408	69	20.4
	Imports	66	69	3	4.5
	Trade balance	273	339	66	24.2
CH042	Other plastics in primary forms:				
	Exports	3,190	3,664	474	14.9
	Imports	1,009	1,046	37	3.7
	Trade balance	2,181	2,618	437	20.0
CH043	SBR rubber in primary forms:				
	Exports	206	219	13	6.3
	Imports	94	92	-2	-2.1
	Trade balance	112	127	15	13.4
CH044	Natural rubber and other synthetic rubber:				
	Exports	822	808	-14	-1.7
	Imports	1,130	1,039	-91	-8.1
	Trade balance	-308	-231	77	25.0
CH045	Pneumatic tires and tubes (new):				
	Exports	1,097	1,215	118	10.8
	Imports	2,522	2,227	-295	-11.7
	Trade balance	-1,425	-1,012	413	29.0
CH046	Other tires:				
	Exports	49	58	9	18.4
	Imports	67	78	11	16.4
	Trade balance	-18	-20	-2	-11.1
CH047	Plastic or rubber semifabricated forms:				
	Exports	2,519	2,603	84	3.3
	Imports	1,652	1,743	91	5.5
	Trade balance	867	860	-7	-0.8
CH048	Plastic containers and closures:				
	Exports	575	681	106	18.4
	Imports	697	665	-32	-4.6
	Trade balance	-122	16	138	113.1
CH049	Hose, belting and plastic pipe:				
	Exports	670	739	69	10.3
	Imports	617	589	-28	-4.5
	Trade balance	53	150	97	183.0
CH050	Miscellaneous rubber or plastics products:				
	Exports	1,734	1,997	263	15.2
	Imports	2,888	2,929	41	1.4
	Trade balance	-1,154	-932	222	19.2
CH051	Gelatin:				
	Exports	30	31	1	3.3
	Imports	66	80	14	21.2
	Trade balance	-36	-49	-13	-36.1

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
[2] This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS import and export items for trade monitoring purposes.

Source: Compiled from official statistics of the U.S. Department of Commerce.

CHAPTER 6
MINERALS AND METALS

A 21-percent improvement in the trade deficit in the minerals and metals sector (to $12.9 billion) during 1990-91 is a continuation of a trend that started in 1986. The improvement in the deficit during the recent 2-year period reflects a 6-percent growth in U.S. exports, which rose to $28.3 billion, and a 4-percent decline in U.S. imports, which fell to $41.2 billion (table 19). The principal export markets in 1991 were Mexico, Taiwan, Korea, and the People's Republic of China. With the exception of Canada, imports from all sources declined during the period.

The improved deficit position was driven by various product categories, primarily steel mill products (a deficit reduced by $1.4 billion), aluminum mill products (a surplus increased by $443 million), and zinc and related articles (a deficit reduced by $344 million). These favorable shifts in the sector's trade balance are largely attributed to (1) improved competitive conditions in the steel industry and declining prices which enhanced exports of steel as U.S. producers sought alternative world markets, (2) increased demand for U.S. exports of aluminum mill products by OPEC countries following the Persian Gulf war, and (3) a general downturn in the U.S. economy during 1990-91, which dampened demand for zinc, and other nonmetallic minerals.

The overall favorable trend in sector trade was negatively affected by declining trade surpluses in iron and steel waste and scrap ($371 million) and precious metals and related articles ($247 million), and a deficit increase in nonpowered handtools ($214 million). The following reasons were largely responsible for these negative trade shifts: (1) declining steel production in most countries that dampened demand for scrap, (2) an increase in imports of precious metals and related articles from Canada as a result of increased gold reserve sales by the Bank of Canada to customers in the United States, and (3) rising prices of nonpowered handtools from Japan and Taiwan, which increased the value of U.S. imports from those countries.

U.S. Bilateral Trade

In the minerals and metals sector, the principal U.S. trading partners continue to be Canada, Japan, Mexico, and the EC countries. Imports from these countries accounted for an aggregate 50 percent of total sector imports, and exports to these countries represented 63 percent of total sector exports. Trade with these principal trading partners during 1991 resulted in a deficit of $2.7 billion, which was 52 percent smaller than the deficit during 1990. The products that represented the largest value of trade included iron and steel mill products, precious metals and related products, unwrought aluminum, copper ores, synthetic gemstones, and industrial fasteners.

The most significant shift in the sector during 1990-91, on a U.S. bilateral trade basis, occurred in trade of precious metals with Canada. The $633 million increase in imports of gold bullion from Canada largely reflects the selling of Canada's gold reserves into world markets through U.S. traders and brokers.

Commodity Analyses

Steel mill products

Decreasing domestic steel prices and the continued improvement of U.S. industry competitiveness (through cost reductions, joint-venture capital infusions, and quality and service gains) discouraged foreign producers from selling in the United States and spurred U.S. producers to aggressively seek overseas markets. As a result, the value of steel exports in 1991 increased by 32 percent to $3.7 billion. Most of this increase was in low-value steel ingots and hot-rolled sheet to Korea, Taiwan, and Japan, where steel producers faced shortages of feedstock for their rolling mills.

At the same time, relatively low steel prices resulting from weak demand in major steel-consuming industries and from increased market share taken by low-cost minimills served as a disincentive to foreign producers selling in the United States. The value of U.S. imports fell by 6 percent, to $7.9 billion, reflecting declines in imports from nearly all traditional supplying countries in Latin America, Europe, and Asia. The increased exports and decreased imports resulted in a $1.4 billion improvement in the steel trade deficit to $4.2 billion.

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Nonpowered handtools

An 18-percent increase in the value of U.S. imports of nonpowered handtools and a 3-percent increase in exports, resulted in expansion of the industry's trade deficit by 68 percent to $529 million during 1990-91. Rising prices of wrenches and certain interchangeable tools from Japan and Taiwan, although still significantly below comparable grade U.S. handtools, were largely responsible for the increase in the value of imports, which rose 18 percent to $1.6 billion in 1991. U.S. exports of nonpowered handtools increased slightly to $1.1 billion during the period. Exports to Canada, the largest export market, accounted for 31 percent of total exports.

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Iron and steel waste and scrap

U.S. exports of iron and steel scrap declined by almost 25 percent to $1.2 billion reducing the trade surplus in these items from 1990 to 1991. Steel production, the leading use of scrap, declined in most countries accounting for part of the reduction in U.S. exports. In addition, several markets for U.S. exports

Table 19
Minerals and metals sector: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1990 and 1991[1]

Item	1990	1991	Change from 1990 to 1991 Amount	Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Canada	7,603	7,498	-105	-1.3
Japan	3,733	3,750	17	0.4
Mexico	2,354	2,959	605	25.7
Germany	889	800	-89	-10.0
United Kingdom	1,732	1,622	-110	-6.3
Taiwan	796	1,064	268	33.6
Republic of Korea	1,239	1,500	261	21.0
France	781	765	-16	-2.0
Italy	431	373	-58	-13.4
China	183	298	115	62.8
Singapore	361	410	49	13.5
All other	6,527	7,304	777	11.9
Total	26,629	28,343	1,714	6.4
EC-12	5,061	4,858	-203	-4.0
OPEC	578	923	345	59.6
ASEAN	808	955	147	18.1
CBERA	489	498	9	1.8
Eastern Europe	28	48	20	71.4
U.S. imports for consumption:				
Canada	9,228	9,282	54	0.5
Japan	4,814	4,711	-103	-2.1
Mexico	2,181	1,892	-289	-13.2
Germany	2,391	2,221	-170	-7.1
United Kingdom	1,778	1,596	-182	-10.2
Taiwan	2,189	2,171	-18	-0.8
Republic of Korea	1,282	1,205	-77	-6.0
France	1,435	1,308	-127	-8.8
Italy	1,249	1,087	-162	-12.9
China	845	964	119	14.0
Singapore	79	66	-13	-16.4
All other	15,426	14,736	-690	-4.4
Total	42,895	41,237	-1,658	-3.9
EC-12	9,809	9,045	-764	-7.7
OPEC	686	567	-119	-17.3
ASEAN	623	674	51	8.1
CBERA	396	383	-13	-3.2
Eastern Europe	289	289	0	0.0
U.S. merchandise trade balance:				
Canada	-1,625	-1,784	-159	-9.7
Japan	-1,081	-961	120	11.1
Mexico	173	1,067	894	516.7
Germany	-1,502	-1,421	81	5.3
United Kingdom	-46	26	72	156.5
Taiwan	-1,393	-1,107	286	20.5
Republic of Korea	-43	295	338	786.0
France	-654	-543	111	16.9
Italy	-818	-714	104	12.7
China	-662	-666	-4	-0.6
Singapore	282	344	62	21.9
All other	-8,897	-7,430	1,467	16.5
Total	-16,266	-12,894	3,372	20.7
EC-12	-4,748	-4,187	561	11.8
OPEC	-108	356	464	429.6
ASEAN	185	281	96	51.8
CBERA	93	115	22	23.6
Eastern Europe	-261	-241	20	7.6

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Source: Compiled from official statistics of the U.S. Department of Commerce.

(i.e., Japan and northern Europe) either reduced their imports because they have balanced domestic consumption with production, or have started to export as their maturing economies begin to generate increasing amounts of scrap.

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Zinc and related articles

A sluggish U.S. economy resulted in reduced zinc consumption in the motor vehicle and construction sectors (for galvanized steel and die-cast parts) and contributed to a 36-percent ($371 million) decrease in imports of zinc and related articles in 1991. U.S. zinc consumption declined by about 100,000 metric tons in 1991, mostly at the expense of imports as U.S. production decreased only slightly. The decline in imports also reflects zinc prices that decreased from an average of over $0.70 per pound in 1990 to an average of about $0.50 per pound in 1991.

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Natural and synthetic gemstones

A tightening of world diamond supplies by DeBeers (a London-based diamond cartel) coupled with increased demand for top-quality cut stones in France, Switzerland, and Britain contributed to an average price increase of 99 percent for the limited supply of larger, more expensive diamonds exported by the United States. This change resulted in overall reduced demand overseas and a 37-percent drop in U.S. exports of the premium U.S. gemstone product. This decline caused a continuing trade deficit for natural and synthetic gemstones that reached $4.2 billion in 1991, although an 8-percent increase occurred in the value of colored and synthetic gemstone exports, which rose to $229 million. Switzerland, Thailand, Hong Kong, United Kingdom, and Belgium (all major gemstone cutting or trading centers) accounted for 48 percent ($215 million) of the export value.

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Aluminum mill products

Increased exports of aluminum mill products to OPEC nations following the Persian Gulf war and a decline in imports of such products reflecting the downturn in the U.S. economy contributed to further improvement of the trade surplus by $443 million. Total imports decreased by 21 percent to $963 million during 1990-91, with the greatest decline in imports from Japan (down 45 percent to $121 million). Imports from Canada, the traditional principal source of U.S. mill product imports, remained unchanged at about $424 million and accounted for 44 percent of the value of imports.

Reconstruction in post-war OPEC nations boosted U.S. exports of aluminum mill products by 12 percent during 1990-91 to $1.7 billion as exports to OPEC nations more than doubled to $145 million. Canada remained the principal U.S. export market, although U.S. exports to Canada fell by 10 percent to $721 million.

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Precious metals and related articles

Significant growth in U.S. nonmonetary gold bullion imports from Canada more than offset increased U.S. exports of precious metals and related articles, contributing to the slide from a trade surplus of $57 million in 1990 to a $190-million trade deficit in 1991. The $1.1 billion in imports of gold bullion from Canada reflects industry expansion in 1991, when several new gold and PGM-group mines came onstream (e.g., Lac des Iles, Silidor, and Colomac), and the selling of gold reserves by the Bank of Canada into the world market through the United States.

U.S. imports of precious metals and related articles rose by 17 percent during 1990-91 to $4.4 billion, at which time Canada regained its position as the leading U.S. import source (accounting for $1.4 billion) after falling behind South Africa in 1990. U.S. exports increased by nearly 11 percent to $4.2 billion, primarily as a result of 19-percent growth in nonmonetary gold bullion exports. Principal U.S. export markets included Switzerland, the United Kingdom, and Hong Kong, which are major jewelry-manufacturing and precious-metal-trading centers.

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Table 20
Minerals and metals sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Percent
		Million dollars			
MM001	Clays and nonmetallic minerals and products, not elsewhere specified or included:				
	Exports	701	748	47	6.7
	Imports	122	87	-35	-28.7
	Trade balance	579	661	82	14.2
MM002	Certain miscellaneous mineral substances:				
	Exports	4	19	15	375.0
	Imports	56	41	-15	-26.8
	Trade balance	-52	-22	30	57.7
MM003	Iron ores and concentrates:				
	Exports	123	156	33	26.8
	Imports	560	437	-123	-22.0
	Trade balance	-437	-281	156	35.7
MM004	Copper ores and concentrates:				
	Exports	446	382	-64	-14.4
	Imports	134	67	-67	-50.0
	Trade balance	312	315	3	1.0
MM005	Lead ores and residues:				
	Exports	62	38	-24	-38.7
	Imports	4	3	-1	-25.0
	Trade balance	58	35	-23	-39.7
MM006	Zinc ores and residues:				
	Exports	269	232	-37	-13.8
	Imports	24	28	4	16.7
	Trade balance	245	204	-41	-16.7
MM007	Certain ores, concentrates, ash, and residues:				
	Exports	362	292	-70	-19.3
	Imports	495	473	-22	-4.4
	Trade balance	-133	-181	-48	-36.1
MM008	Precious metal ores and concentrates:				
	Exports	13	4	-9	-69.2
	Imports	30	11	-19	-63.3
	Trade balance	-17	-7	10	58.8
MM009	Certain nonmetallic minerals and articles:				
	Exports	982	1,031	49	5.0
	Imports	1,923	1,663	-260	-13.5
	Trade balance	-941	-632	309	32.8
MM010	Refractory and heat-insulating articles:				
	Exports	251	240	-11	-4.4
	Imports	136	161	25	18.4
	Trade balance	115	79	-36	-31.3
MM011	Ceramic bricks and miscellaneous ceramic construction articles:				
	Exports	18	18	0	0
	Imports	22	20	-2	-9.1
	Trade balance	-4	-2	2	50.0
MM012	Ceramic floor and wall tiles:				
	Exports	21	21	0	0
	Imports	421	365	-56	-13.3
	Trade balance	-400	-344	56	14.0
MM013	Ceramic sanitary fixtures:				
	Exports	54	46	-8	-14.8
	Imports	72	64	-8	-11.1
	Trade balance	-18	-18	0	0

See footnotes at end of table.

Table 26--Continued
Minerals and metals sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
MM014	Ceramic table, toilet, and kitchen articles:				
	Exports	55	70	15	27.3
	Imports	779	778	-1	-0.1
	Trade balance	-724	-708	16	2.2
MM015	Miscellaneous ceramic articles:				
	Exports	135	148	13	9.6
	Imports	526	562	36	6.8
	Trade balance	-391	-414	-23	-5.9
MM016	Flat glass and certain flat glass products:				
	Exports	751	786	35	4.7
	Imports	614	584	-30	-4.9
	Trade balance	137	202	65	47.4
MM017	Glass containers:				
	Exports	98	119	21	21.4
	Imports	214	234	20	9.3
	Trade balance	-116	-115	1	0.9
MM018	Household glassware:				
	Exports	123	137	14	11.4
	Imports	524	513	-11	-2.1
	Trade balance	-401	-376	25	6.2
MM019	Certain glass and glass products:				
	Exports	344	364	20	5.8
	Imports	286	319	33	11.5
	Trade balance	58	45	-13	-22.4
MM020	Fiber glass products:				
	Exports	347	384	37	10.7
	Imports	112	127	15	13.4
	Trade balance	235	257	22	9.4
MM021	Natural and synthetic gemstones:				
	Exports	545	452	-93	-17.1
	Imports	4,703	4,681	-22	-0.5
	Trade balance	-4,158	-4,229	-71	-1.7
MM022	Precious metals and related articles:				
	Exports	3,815	4,216	401	10.5
	Imports	3,758	4,406	648	17.2
	Trade balance	57	-190	-247	-433.3
MM023	Pig iron:				
	Exports	2	2	0	0
	Imports	60	75	15	25.0
	Trade balance	-58	-73	-15	-25.9
MM024	Ferroalloys:				
	Exports	94	99	5	5.3
	Imports	908	835	-73	-8.0
	Trade balance	-814	-736	78	9.6
MM025	Iron and steel waste and scrap:				
	Exports	1,642	1,240	-402	-24.5
	Imports	180	149	-31	-17.2
	Trade balance	1,462	1,091	-371	-25.4
MM026	Direct reduced iron, ferrous powders, and grit and shot:				
	Exports	51	50	-1	-2.0
	Imports	92	106	14	15.2
	Trade balance	-41	-56	-15	-36.6

See footnotes at end of table.

Table 20--Continued
Minerals and metals sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Percent
		Million dollars			
MM027	Steel mill products, all grades:				
	Exports	2,784	3,685	901	32.4
	Imports	8,385	7,892	-493	-5.9
	Trade balance	-5,601	-4,207	1,394	24.9
MM028	Steel pipe and tube fittings, and certain cast products:				
	Exports	422	479	57	13.5
	Imports	364	348	-16	-4.4
	Trade balance	58	131	73	125.9
MM029	Fabricated structurals:				
	Exports	84	110	26	31.0
	Imports	72	47	-25	-34.7
	Trade balance	12	63	51	425.0
MM030	Metal construction components:				
	Exports	335	377	42	12.5
	Imports	150	139	-11	-7.3
	Trade balance	185	238	53	28.6
MM031	Metallic containers:				
	Exports	401	511	110	27.4
	Imports	257	244	-13	-5.1
	Trade balance	144	267	123	85.4
MM032	Wire products of iron, steel, aluminum, copper, and nickel:				
	Exports	249	303	54	21.7
	Imports	643	524	-119	-18.5
	Trade balance	-394	-221	173	43.9
MM033	Chain:				
	Exports	312	343	31	9.9
	Imports	476	478	2	0.4
	Trade balance	-164	-135	29	17.7
MM034	Industrial fasteners of base metal:				
	Exports	651	664	13	2.0
	Imports	1,486	1,330	-156	-10.5
	Trade balance	-835	-666	169	20.2
MM035	Cooking and kitchen ware:				
	Exports	170	218	48	28.2
	Imports	725	751	26	3.6
	Trade balance	-555	-533	22	4.0
MM036	Metal sanitary ware:				
	Exports	71	72	1	1.4
	Imports	101	92	-9	-8.9
	Trade balance	-30	-20	10	33.3
MM037	Iron construction castings and other nonmalleable cast-iron articles:				
	Exports	31	31	0	0
	Imports	58	51	-7	-12.1
	Trade balance	-27	-20	7	25.9
MM038	Copper and related articles:				
	Exports	1,833	1,843	10	0.5
	Imports	1,966	1,822	-144	-7.3
	Trade balance	-133	21	154	115.8
MM039	Unwrought aluminum:				
	Exports	1,898	1,842	-56	-3.0
	Imports	2,252	2,021	-231	-10.3
	Trade balance	-354	-179	175	49.4

See footnotes at end of table.

Table 20--Continued
Minerals and metals sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Percent
		Million dollars			
MM040	Aluminum mill products:				
	Exports	1,512	1,696	184	12.2
	Imports	1,222	963	-259	-21.2
	Trade balance	290	733	443	152.8
MM041	Lead and related articles:				
	Exports	107	113	6	5.6
	Imports	91	80	-11	-12.1
	Trade balance	16	33	17	106.3
MM042	Zinc and related articles:				
	Exports	118	91	-27	-22.9
	Imports	1,034	663	-371	-35.9
	Trade balance	-916	-572	344	37.6
MM043	Certain base metals and chemical elements:				
	Exports	1,048	991	-57	-5.4
	Imports	1,925	1,866	-59	-3.1
	Trade balance	-877	-875	2	0.2
MM044	Nonpowered handtools:				
	Exports	1,063	1,091	28	2.6
	Imports	1,378	1,620	242	17.6
	Trade balance	-315	-529	-214	-67.9
MM045	Cutlery other than tableware, certain sewing implements, and related products:				
	Exports	223	227	4	1.8
	Imports	415	438	23	5.5
	Trade balance	-192	-211	-19	-9.9
MM046	Table flatware and related products:				
	Exports	43	24	-19	-44.2
	Imports	172	196	24	14.0
	Trade balance	-129	-172	-43	-33.3
MM047	Certain builders' hardware:				
	Exports	554	562	8	1.4
	Imports	843	787	-56	-6.6
	Trade balance	-289	-225	64	22.1
MM048	Miscellaneous products of base metal:				
	Exports	1,410	1,777	367	26.0
	Imports	2,123	2,099	-24	-1.1
	Trade balance	-713	-322	391	54.8

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
[2] This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS import and export items for trade monitoring purposes.

Source: Compiled from official statistics of the U.S. Department of Commerce.

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CHAPTER 7
MACHINERY AND EQUIPMENT[7]

U.S. merchandise trade in machinery and equipment accounted for 32 percent of U.S. exports in 1991 and 27 percent of U.S. imports. U.S. exports of machinery and equipment showed a significant improvement during the period, increasing by 11 percent to $130 billion and accounting for 47 percent of total U.S. export growth. The strong growth in U.S. exports, along with a small decline in U.S. imports, resulted in a 91-percent reduction in the U.S. trade deficit in these products (table 21). The decline in the trade deficit was achieved despite a persistently large trade deficit with Japan in motor vehicles and parts. Principal export markets during the period included Canada, the EC, Mexico, and the OPEC nations. U.S. imports of machinery and equipment declined by 3 percent to $131.7 billion in 1991, with the EC accounting for much of the decline. Significant changes in the trade balance from 1990 to 1991 for the machinery and equipment sector occurred in aircraft engines and gas turbines; aircraft; air-conditioning equipment; motor vehicle parts; construction and mining equipment; automobiles, trucks, and buses; farm and garden machinery; and semiconductor equipment, robots, and other machinery.

U.S. Bilateral Trade

The major U.S. trading partners in machinery and equipment in 1991 were Canada, Japan, the EC, and Mexico. The trade deficit with Japan declined by $727 million to $34.6 billion, whereas the trade balance with the EC changed from a deficit of $5.2 billion in 1990 to a surplus of $517 million in 1991. The trade deficit with Canada showed a similar improvement, declining from a deficit of $1.4 billion to a deficit of $801 million. The trade surplus with Korea continued to rise during the period, increasing by more than 214 percent to $1.5 billion.

Significant increases in U.S. exports of machinery and equipment to the EC, Mexico, Korea, and the OPEC nations contributed to the decline in the U.S. trade deficit. Shipments of aircraft to Germany rose by 39 percent to $2.9 billion and to France by 57 percent to $2.1 billion. Shipments of aircraft to Korea and Taiwan also rose during 1991, increasing by 57 percent to $1.4 billion and 170 percent to $1.1 billion, respectively. Exports of automobiles, trucks, and buses to Saudi Arabia increased by 104 percent to $1 billion and to Kuwait by more than 634 percent to $527 million. Principal machinery and equipment exports to Mexico included electric motors and generators and motor vehicle parts.

[7] It should be noted that certain products that were included in ch. 7, Machinery and Equipment, of the USITC 1990 annual report, *U.S. Trade Shifts in Selected Commodity Areas, USITC publication 2380*, are now covered in the Electronic Technology chapter of this report.

Commodity Analyses

Aircraft engines and gas turbines

Imports of aircraft engines and gas turbines increased from $5.1 billion in 1990 to $5.4 billion in 1991, or by 6 percent. Imports from France, which accounted for 38 percent of the 1991 total, rose by 19 percent to $2.1 billion. Imports from the United Kingdom, the second-largest supplier, declined by 5 percent to $1.4 billion. Imports from France and the United Kingdom consisted of complete aircraft engines and aircraft engine parts. The increase in imports of engines and engine parts is attributable to the rise in U.S. shipments of aircraft and the increased utilization of existing aircraft, both of which are due to the projected increase in demand for air travel services. Increased aircraft utilization requires more frequent servicing and maintenance, and parts replacement.

Exports of aircraft engines and gas turbines increased by 6 percent to $8.3 billion in 1991, from $7.8 billion in 1990. The largest markets for U.S. exports of these products in 1991 were France and the United Kingdom. France received $2.2 billion in exports in 1991, whereas exports to the United Kingdom decreased by 11 percent to $822 million. The overall increase in exports of engines and gas turbines stems from the continued strong demand for transport aircraft, including those manufactured by European nations, and the increased utilization of existing aircraft.

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Air-conditioning equipment and parts

The U.S. trade surplus in air-conditioning equipment continued to improve in 1991, increasing by 250 percent to $550 million. The increase in the surplus was related to an 8-percent decrease in U.S. imports to $2.6 billion and a 6-percent increase in U.S. exports to $3.2 billion.

In 1991, Japan, Taiwan, Mexico, Germany and Canada were the principal foreign suppliers of air-conditioning equipment to the U.S. market, together accounting for 64 percent of total U.S. imports. A 13-percent reduction in shipments from Japan and an 8-percent reduction from Canada accounted for the bulk of the overall decrease in U.S. imports during the period. The decrease in shipments from Japan was attributable to a slowdown in the U.S. economy and a decrease in demand for motor-vehicle air-conditioners and compressors. Additionally, Japanese investors have recently opened two U.S. manufacturing plants to produce compressors. As a result of the United States-Canada Free-Trade Agreement, U.S. firms with subsidiaries in Canada have begun to curtail production of primarily fractional horsepower (less than 1 horsepower) automotive compressors, room air-conditioners, and unitary (stand alone) air-conditioning equipment, including heat pumps. At the same time, Mexico, with it low-wage labor and close proximity to the United States, has gradually emerged as a leading source of compressors and window air-conditioners.

Table 21
Machinery and equipment sector: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1990 and 1991[1]

Item	1990	1991	Change from 1990 to 1991 Amount	Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Canada	33,869	33,515	-354	-1.0
Japan	8,178	7,875	-303	-3.7
Mexico	8,859	10,594	1,735	19.5
Germany	5,473	6,961	1,488	27.1
United Kingdom	7,814	6,678	-1,136	-14.5
Taiwan	2,855	3,433	578	20.2
Republic of Korea	3,152	4,432	1,280	40.6
France	5,012	6,094	1,082	21.5
Italy	1,627	2,019	392	24.0
China	1,568	2,109	541	34.5
Singapore	2,219	2,653	434	19.5
All other	36,864	43,682	6,819	18.4
Total	117,490	130,045	12,556	10.7
EC-12	27,945	30,461	2,516	9.0
OPEC	5,355	8,797	3,442	64.2
ASEAN	5,409	6,218	809	14.9
CBERA	1,620	1,637	17	1.0
Eastern Europe	365	381	16	4.3
U.S. imports for consumption:				
Canada	35,280	34,316	-964	-2.7
Japan	42,005	42,429	424	1.0
Mexico	8,529	9,565	1,036	12.1
Germany	15,149	12,733	-2,416	-15.9
United Kingdom	6,889	5,809	-1,080	-15.6
Taiwan	2,656	2,597	-59	-2.2
Republic of Korea	2,459	2,253	-206	-8.3
France	4,899	5,465	566	11.5
Italy	3,087	2,833	-254	-8.2
China	1,000	1,232	232	23.2
Singapore	633	613	-20	-3.1
All other	12,571	11,818	-753	-5.9
Total	135,157	131,663	-3,494	-2.6
EC-12	33,123	29,944	-3,179	-9.5
OPEC	112	102	-10	-8.9
ASEAN	1,290	1,324	34	2.6
CBERA	78	75	-3	-3.8
Eastern Europe	282	278	-4	-1.4
U.S. merchandise trade balance:				
Canada	-1,411	-801	610	43.2
Japan	-33,827	-34,554	-727	-2.1
Mexico	330	1,029	699	211.8
Germany	-9,676	-5,772	3,904	40.3
United Kingdom	925	869	-56	-6.0
Taiwan	199	836	637	320.1
Republic of Korea	693	2,179	1,486	214.4
France	113	629	516	456.6
Italy	-1,460	-814	646	44.2
China	568	877	309	54.4
Singapore	1,586	2,040	454	28.6
All other	24,291	31,864	7,571	31.1
Total	-17,667	-1,618	16,049	90.8
EC-12	-5,178	517	5,695	109.9
OPEC	5,243	8,695	3,452	65.8
ASEAN	4,119	4,894	775	18.8
CBERA	1,542	1,562	20	1.2
Eastern Europe	83	103	20	24.0

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Canada was the leading export market for U.S. air-conditioning equipment for the 9th consecutive year in 1991, accounting for 30 percent of total U.S. exports. Despite a small decline in U.S. shipments to Canada in 1991, U.S. exports to the Canadian market were still significant, amounting to $951 million. A major economic recession in Canada was the primary reason for the negligible decrease in exports. However, despite the economic downturn, Canada remained the leading export market for all types of air-conditioning and refrigeration compressors, parts for compressors, and motor-vehicle air-conditioners in 1991. Mexico was the second-largest export market for air-conditioning equipment in 1991, receiving $313 millions in U.S. shipments. The increase in U.S. shipments to Mexico was largely a result of U.S. and Japanese subsidiaries exporting parts and subassemblies to border factories making use of Mexico's maquiladora program.

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Construction and mining equipment

U.S. imports of construction and mining equipment showed a significant decline in 1991, decreasing by 41 percent to $1.3 billion. The decline was largely attributable to sluggish construction activity in the United States. Japan remained the principal supplier during the period, although imports from Japan fell by 51 percent to $431 million. The decline in imports from Japan was related primarily to increased production in the United States by Japanese subsidiaries, whose output often replaces such equipment imported from Japan. Imports from Canada, the second-largest supplier, also declined during the period, falling by 16 percent to $216 million. The decrease in U.S. imports, coupled with a 9-percent increase in U.S. exports, expanded the U.S. trade surplus in construction and mining equipment by more than 141 percent to $2.0 billion.

U.S. exports of construction and mining equipment increased from $3.1 billion in 1990 to $3.4 billion in 1991. Canada continued to provide the largest market for these products, receiving 20 percent of total exports. However, U.S. exports to Canada declined by 20 percent during the period, falling to $669 million. Similar to conditions in the United States, Canadian building and construction activities were in decline in 1991. In contrast, U.S. exports to Mexico increased by 59 percent in 1991, rising to $280 million and making Mexico the second-largest market foreign market for U.S.-produced construction and mining equipment. The increase in U.S. exports to Mexico was the result of Mexican Government reforms in the areas of import licensing and tariffs, infrastructure projects, and the recent privatization of various mines in Mexico.

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Farm and garden machinery

U.S. imports of farm and garden machinery declined by 24 percent from 1990 to 1991, falling from $2.8 billion to $2.1 billion. The leading suppliers in 1991 were Germany, Canada, Japan, and the United Kingdom. Slightly more than 60 percent of the decline in the value of U.S. imports was in tractors and parts, particularly from Belgium, the United Kingdom, and Germany. In 1991, the U.S. market for farm and garden equipment was weakened by declining farm income resulting from lower farm subsidies, lower commodity prices, and drought conditions in certain sections of the United States. Sales of garden machinery were also linked to the decline in housing starts from 1990 to 1991.

U.S. exports of farm and garden machinery declined by 2 percent to $3.5 billion in 1991. U.S. exports to Canada, the United Kingdom, Australia, and Belgium, all leading markets, declined, in large part because of the agricultural recessions in those countries. However, exports rose marginally to the EC, Mexico, and Saudi Arabia. The U.S. merchandise trade surplus in farm and garden machinery rose from $759 million in 1990 to almost $1.4 billion in 1991.

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Semiconductor equipment, robots, and other machinery[8]

The value of U.S. exports of semiconductor equipment, robots, and other machinery rose to $10.2 billion, or by 14 percent during 1991 compared with 1990. Although a number of industries within this broad grouping experienced gains, the most significant were recorded by the industry manufacturing parts for oil and gas field machinery (up $894 million) and the industry manufacturing parts for machinery to produce glass or glassware (up $83 million). Exports of these varied products went to many countries, with Canada, Venezuela, Japan, Mexico, and United Kingdom accounting for 40 percent of the total during 1991. The top 10 countries received almost 60 percent U.S. exports and are believed to have benefitted from a weaker U.S. dollar relative to certain foreign currencies and as a result of the United States-Canada FTA. Other contributing factors included the increased demand for machinery by the oil and gas industries of Venezuela and Mexico and the continuing improvement of U.S. real wage costs, relative to real wage costs in major competitor countries, particularly Germany.

The value of U.S. imports of semiconductor equipment, robots, and other machinery rose by less than 1 percent to $5.6 billion in 1991. The slow import growth is attributable to the prolonged U.S. recession. Japan, Germany, and Canada supplied about two-thirds of imports, by value, in 1991. The 10-percent increase

[8] This category consists of a miscellany of industrial machinery and parts covered by 111 HTS 8-digit item numbers.

in imports from Japan in 1991 amounted to a gain of $164 million, whereas imports from Italy declined by 17 percent, or by $46 million.

The U.S. trade balance in semiconductor equipment, robots, and other machinery improved from a surplus of $3.3 billion in 1990 to a surplus of $4.5 billion in 1991. In 1991, the United States maintained a trade surplus with 8 of its top 10 trading partners, but incurred deficits with its largest partner, Japan ($1.1 billion), and its third-leading partner, Germany ($571 million).

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Boilers, turbines, and related machinery

U.S. exports of boilers, steam and vapor turbines, and related machinery rose by 42 percent, from $632 million in 1990 to $897 million in 1991. Major U.S. export markets were Korea, Canada, Israel, the United Kingdom, Indonesia, and Guatemala. These markets have major power-generation projects underway. U.S. exports are competitive due to the low value of the U.S. dollar and the technical expertise of U.S. producers. U.S. exports to Korea rose from $30 million to $184 million, and for the most part consisted of turbines. Shipments to Canada almost doubled during the period, increasing from $57 million to $111 million, and were principally boilers and hydraulic turbines. Exports to Israel and Indonesia were principally boilers, while exports to Guatemala were steam turbines. U.S. exports of nuclear reactors totaled $45 million in 1991, compared with $232 million in exports of industrial boilers, $52 million in central heating boilers, $373 million in steam and vapor turbines, $58 million in hydraulic turbines, and $64 million in auxiliary plant equipment.

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Electric motors, generators, and related equipment

U.S. imports of electric motors, generators, and related equipment increased by 5 percent to $2.4 billion during 1991, compared with $2.3 billion during 1990. Motors, primarily those of less than 1 horsepower (fractional horsepower), accounted for a substantial portion of total imports in both years. Fractional horsepower motors are most often incorporated into consumer and commercial products such as lawn-care equipment, fans, blenders, and toys. Other significant concentrations of imports occurred in the following tariff classifications: multiphase alternating current (AC) motors of from 1 to 20 horsepower and 500 horsepower and above; electric generating sets other than gasoline- or diesel-engine driven units; parts of motors, generators, and generating sets other than commutators; and miscellaneous electromagnetic articles and parts. Japan accounted for 26 percent of total U.S. imports during 1991, and Mexico, the second-leading supplier, accounted for an additional 16 percent. U.S. imports from Mexico are principally the result of "maquiladora" assembly operations of U.S. companies along the U.S.-Mexico border. With the exception of Japan, the United Kingdom, and Taiwan, all of the top-ten leading import suppliers registered gains during 1991, with Switzerland, Denmark, and China recording the largest percentage increases—52 percent (to $102 million), 147 percent (to $70 million), and 36 percent (to $70 million), respectively.

U.S. exports of electric motors, generators, and related equipment increased to $2.3 billion during 1991, from $1.9 billion during 1990, or by 25 percent. As a result, the U.S. trade deficit in these products decreased by 92 percent to a deficit of $32 million during 1991 from a deficit of $397 million in 1990. A substantial portion of the export increase was accounted for by shipments of domestic merchandise to Mexico, by U.S. companies in support of their foreign subsidiary operations. U.S. exports to South Korea also rose sharply. The principal categories of U.S. export shipments were diesel-engine-driven and miscellaneous (other than diesel and gas-powered) electric generating sets and parts of motors, generators, and generating sets other than commutators. These product groupings accounted for 54 percent of total U.S. exports during 1991.

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Primary cells and batteries and electric storage batteries

U.S. imports of primary cells and batteries and electric storage batteries increased by 11 percent from $719 million in 1990 to $795 million in 1991. Japan and Mexico continued to be the principal suppliers of primary cells and batteries and electric storage batteries, accounting for 48 and 19 percent of total imports in 1991, respectively. There were also notable increases in U.S. imports from Canada (34 percent) and Mexico (23 percent) during 1991. The majority of the increase in U.S. imports from Canada was for lead-acid batteries, which are used primarily in automobiles. U.S. industry sources indicate that the increase can be partially attributed to recent restructuring efforts to improve efficiency by certain U.S.- and Canadian-owned battery firms that have production facilities in both countries. The rise in U.S. imports from Mexico during 1991 was primarily due to a substantial increase in U.S. imports of nickel cadmium batteries. According to industry sources, nickel cadmium batteries are increasingly being used by U.S. computer producers. These batteries provide a standby power source for computers to protect users during commercial power outages. Several U.S. battery manufacturers have established maquiladora assembly plants along the Mexican border for the export of batteries to the U.S. market. Several Mexican-owned lead-acid battery producers have also recently opened battery plants and are exporting to the U.S. market.

U.S. exports of primary cells and batteries and electric storage batteries increased by 35 percent from $590 million to $797 million. Canada and Mexico remained the principal markets for these products, accounting for 24 and 21 percent of total exports in 1991, respectively. U.S. exports to Mexico increased substantially (by 85 percent) to $166 million during 1991. Industry sources state that the majority of this rise was lead-acid battery parts that will be assembled in Mexico and re-exported to the United States under HTS subheading 9802.00.80. In 1991, U.S. exports to Japan increased from $23 million to $53 million, or by 124 percent. U.S. industry sources believe that this increase may be attributable in part to an increase in U.S. exports of specialty primary cell batteries for use in safety lighting fixtures.

U.S. trade in primary cells and batteries and electric storage batteries turned to a surplus of $2 million in 1991, marking the first positive trade balance for these products in recent years. The sizeable U.S. trade deficit with Japan ($328 million) in 1991 was offset by the U.S. trade surpluses with Canada, the Netherlands, France, Mexico, and several other countries.

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Automobiles, trucks, buses, and bodies and chassis of the foregoing

U.S. imports of automobiles, trucks, buses, and bodies and chassis totaled $58.1 billion in 1991, representing a decrease of 2 percent from 1990. The decline was primarily a result of poor economic conditions in the United States and reduced motor vehicle sales in 1991. The primary sources of U.S. imports of these commodities continued to be Japan and Canada, which accounted for about $26.0 billion and $20.2 billion of U.S. motor vehicle imports in 1991, respectively.

U.S. exports of automobiles, trucks, buses, and bodies and chassis totaled $15.4 billion in 1991, representing an increase of $2.1 billion (16 percent) from 1990. More than half of the increase resulted from an improvement in U.S. exports to OPEC countries, some of which needed to replace motor vehicles, particularly trucks, after the Gulf War in 1991.

The U.S. motor vehicle trade deficit amounted to $42.7 billion in 1991, compared with $46.2 billion in 1990. The nearly 8-percent decline in the deficit was caused primarily by a decline in demand for motor vehicles produced in the EC. U.S. imports from member states in the EC in 1991 declined to $4.4 billion, from $7.3 billion in 1990. The decline in shipments from the EC reflects the long-term trend of declining competitiveness of EC automobiles in the U.S. market.

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Certain motor-vehicle parts[9]

U.S. imports of certain motor-vehicle parts decreased by 8 percent, from $12.6 billion in 1990 to $11.6 billion in 1991. U.S. imports from Canada, the leading source of certain motor-vehicle parts, fell from $5.4 billion in 1990 to $4.7 billion in 1991, representing a 12-percent decline. The decrease in U.S. imports from Canada was largely attributable to the sluggish U.S. market for automobiles and an almost 16-percent increase in U.S. imports of certain motor-vehicle parts from Mexico in 1991. The increase in imports from Mexico represents a marked shift in foreign sourcing for the U.S. automobile industry. U.S. imports from Japan, the second-leading source of these products, decreased by 9 percent, from $3.3 billion in 1990 to $3.0 billion in 1991. This decrease was partly linked to changing sourcing patterns by Japanese-owned auto producers in the United States from traditional Japanese suppliers to U.S. suppliers in 1991, and the weak U.S. market for automobiles.

U.S. exports of certain motor-vehicle parts decreased from $13.7 billion in 1990 to $13.5 billion in 1991, or by 1 percent. U.S. exports to Canada, the leading U.S. export market, declined by 8 percent from $8.8 billion to $8.0 billion. U.S. exports of certain motor-vehicle parts to Mexico grew by 12 percent, from $2.8 billion to $3.2 billion. These trends were largely attributable to a soft Canadian market for automobiles, and a decrease in Canadian production of motor vehicles by U.S.-owned automakers in conjunction with increased Mexican production of automobiles by these firms. These changing patterns serve to reflect the greater overall rationalization and integration of the North-American automotive industry. The United States experienced an overall trade surplus of nearly $2.0 billion in this commodity group in 1991, compared with a surplus of $1.1 billion in 1990.

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Aircraft, spacecraft, and related equipment

Imports of aircraft, spacecraft, and related equipment rose from $6.4 billion in 1990 to $7.5 billion in 1991, or by 18 percent. Imports from Canada, the leading source of imports of these products, rose by 15 percent to $2 billion. Imports from France, the second-largest source of these products, increased from $1 billion in 1990 to $1.4 billion in 1991. Imports from Canada and France consisted of complete aircraft and aircraft parts. The rise in imports of aircraft and aircraft parts is attributable to the projected rise in U.S. demand for air travel services, which has led U.S. airlines to increase

[9] Products contained in this group include body stampings, bumpers, brakes and parts, gear boxes, axles, wheels, shock absorbers, radiators, exhaust systems, clutches, steering wheels, and miscellaneous parts and accessories.

their passenger capacity, and the replacement of aircraft due to age or noise considerations. The U.S. market for aircraft with between 20 and 100 seats is not served by any U.S. manufacturer; therefore, this market relies solely on imports for aircraft.

Exports of aircraft, spacecraft, and related equipment rose by 17 percent in 1991 to $34.4 billion, from $29.4 billion in 1990. The leading foreign markets for U.S. exports of these products in 1991 were Japan and the United Kingdom. Japan received $3.1 billion in exports in 1991, whereas exports to the United Kingdom decreased by 22 percent, to $3 billion. The overall increase in exports of aircraft, spacecraft, and related equipment stems from the continued strong demand for new transport capacity and the need to replace old and/or noisy aircraft.

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Table 22
Machinery and equipment sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
ME001	Aircraft engines and gas turbines:				
	Exports	7,829	8,330	501	6.4
	Imports	5,083	5,373	290	5.7
	Trade balance	2,746	2,957	211	7.7
ME002	Internal combustion piston engines, other than for aircraft:				
	Exports	5,596	5,850	254	4.5
	Imports	5,731	5,163	-568	-9.9
	Trade balance	-135	687	822	608.9
ME003	Pumps for liquids:				
	Exports	1,542	1,766	224	14.5
	Imports	1,155	1,142	-13	-1.1
	Trade balance	387	624	237	61.2
ME004	Air-conditioning equipment and parts:				
	Exports	3,049	3,218	169	5.5
	Imports	2,892	2,668	-224	-7.7
	Trade balance	157	550	393	250.3
ME005	Certain industrial thermal-processing equipment and certain furnaces:				
	Exports	1,267	1,331	64	5.1
	Imports	799	784	-15	-1.9
	Trade balance	468	547	79	16.9
ME006	Commercial appliances:				
	Exports	1,482	1,663	181	12.2
	Imports	996	1,020	24	2.4
	Trade balance	486	643	157	32.3
ME007	Electrical household appliances and certain heating equipment:				
	Exports	1,478	1,700	222	15.0
	Imports	2,444	2,625	181	7.4
	Trade balance	-966	-925	41	4.2
ME008	Centrifuges and filtering and purifying equipment:				
	Exports	1,356	1,705	349	25.7
	Imports	589	666	77	13.1
	Trade balance	767	1,039	272	35.5
ME009	Wrapping, packaging, and can-sealing machinery:				
	Exports	579	611	32	5.5
	Imports	621	643	22	3.5
	Trade balance	-42	-32	10	23.8
ME010	Scales and weighing machinery:				
	Exports	91	102	11	12.1
	Imports	153	151	-2	-1.3
	Trade balance	-62	-49	13	21.0
ME011	Forklift trucks and similar industrial vehicles:				
	Exports	551	627	76	13.8
	Imports	817	614	-203	-24.8
	Trade balance	-266	13	279	104.9
ME012	Construction and mining equipment:				
	Exports	3,111	3,388	277	8.9
	Imports	2,263	1,344	-919	-40.6
	Trade balance	848	2,044	1,196	141.0
ME013	Mineral processing machinery:				
	Exports	431	452	21	4.9
	Imports	240	215	-25	-10.4
	Trade balance	191	237	46	24.1

See footnotes at end of table.

Table 22--Continued
Machinery and equipment sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Percent
		Million dollars			
ME014	Farm and garden machinery and equipment:				
	Exports	3,542	3,487	-55	-1.6
	Imports	2,783	2,103	-680	-24.4
	Trade balance	759	1,384	625	82.3
ME015	Industrial food-processing and related machinery:				
	Exports	480	537	57	11.9
	Imports	405	395	-10	-2.5
	Trade balance	75	142	67	89.3
ME016	Pulp, paper, and paperboard machinery:				
	Exports	600	638	38	6.3
	Imports	880	694	-186	-21.1
	Trade balance	-280	-56	224	80.0
ME017	Printing, typesetting, and bookbinding machinery and printing plates:				
	Exports	1,139	1,133	-6	-0.5
	Imports	1,192	1,178	-14	-1.2
	Trade balance	-53	-45	8	15.1
ME018	Textile machinery and parts:				
	Exports	698	681	-17	-2.4
	Imports	1,488	1,196	-292	-19.6
	Trade balance	-790	-515	275	34.8
ME019	Metal rolling mills and parts thereof:				
	Exports	252	185	-67	-26.6
	Imports	169	130	-39	-23.1
	Trade balance	83	55	-28	-33.7
ME020	Machine tools for cutting metal and parts; tool holders, work holders; dividing heads and other special attachments for machine tools:				
	Exports	1,151	1,181	30	2.6
	Imports	2,269	2,205	-64	-2.8
	Trade balance	-1,118	-1,024	94	8.4
ME021	Machine tools for metal forming and parts thereof:				
	Exports	664	656	-8	-1.2
	Imports	642	590	-52	-8.1
	Trade balance	22	66	44	200.0
ME022	Non-metalworking machine tools and parts thereof:				
	Exports	375	328	-47	-12.5
	Imports	590	547	-43	-7.3
	Trade balance	-215	-219	-4	-1.9
ME023	Semiconductor equipment, robots, and other machinery:				
	Exports	8,910	10,177	1,267	14.2
	Imports	5,627	5,644	17	0.3
	Trade balance	3,283	4,533	1,250	38.1
ME024	Taps, cocks, valves, and similar devices:				
	Exports	1,231	1,346	115	9.3
	Imports	1,635	1,760	125	7.6
	Trade balance	-404	-414	-10	-2.5
ME025	Ball and roller bearings:				
	Exports	738	727	-11	-1.5
	Imports	968	909	-59	-6.1
	Trade balance	-230	-182	48	20.9

See footnotes at end of table.

Table 22--Continued
Machinery and equipment sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
ME026	Gear boxes and other speed changers; torque converters; ball screws; flywheels and pulleys; clutches and shaft couplings; universal joints; and parts thereof:				
	Exports	544	530	-14	-2.6
	Imports	832	874	42	5.0
	Trade balance	-288	-344	-56	-19.4
ME027	Boilers, turbines, and related machinery:				
	Exports	632	897	265	41.9
	Imports	332	305	-27	-8.1
	Trade balance	300	592	292	97.3
ME028	Electric motors, generators, and related equipment:				
	Exports	1,866	2,338	472	25.3
	Imports	2,263	2,370	107	4.7
	Trade balance	-397	-32	365	91.9
ME029	Electrical transformers, static converters, and inductors:				
	Exports	1,058	1,118	60	5.7
	Imports	1,643	1,800	157	9.6
	Trade balance	-585	-682	-97	-16.6
ME030	Primary cells and batteries and electric storage batteries:				
	Exports	590	797	207	35.1
	Imports	719	795	76	10.6
	Trade balance	-129	2	131	101.6
ME031	Portable electric handtools:				
	Exports	224	252	28	12.5
	Imports	356	332	-24	-6.7
	Trade balance	-132	-80	52	39.4
ME032	Nonelectrically powered hand tools and parts thereof:				
	Exports	341	348	7	2.1
	Imports	435	420	-15	-3.4
	Trade balance	-94	-72	22	23.4
ME033	Ignition, starting, lighting, and other electrical equipment:				
	Exports	870	939	69	7.9
	Imports	1,259	1,156	-103	-8.2
	Trade balance	-389	-217	172	44.2
ME034	Flashlights and other similar electric lights, light bulbs and fluorescent tubes; arc lamps:				
	Exports	562	660	98	17.4
	Imports	715	764	49	6.9
	Trade balance	-153	-104	49	32.0
ME035	Electric and gas welding and soldering equipment:				
	Exports	385	389	4	1.0
	Imports	297	435	138	46.5
	Trade balance	88	-46	-134	-152.3
ME036	Insulated electrical wire and cable, and conduit; glass and ceramic insulators:				
	Exports	1,861	2,145	284	15.3
	Imports	2,728	2,698	-30	-1.1
	Trade balance	-867	-553	314	36.2

See footnotes at end of table.

Table 22--Continued
Machinery and equipment sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
ME037	Rail locomotive and rolling stock:				
	Exports	518	546	28	5.4
	Imports	701	662	-39	-5.6
	Trade balance	-183	-116	67	36.6
ME038	Automobiles, trucks, buses, and bodies and chassis of the foregoing:				
	Exports	13,264	15,403	2,139	16.1
	Imports	59,504	58,084	-1,420	-2.4
	Trade balance	-46,240	-42,681	3,559	7.7
ME039	Certain motor-vehicle parts:				
	Exports	13,713	13,520	-193	-1.4
	Imports	12,618	11,565	-1,053	-8.3
	Trade balance	1,095	1,955	860	78.5
ME040	Motorcycles, mopeds, and parts:				
	Exports	306	441	135	44.1
	Imports	449	584	135	30.1
	Trade balance	-143	-143	0	0
ME041	Miscellaneous vehicles and transportation-related equipment:				
	Exports	1,777	2,244	467	26.3
	Imports	1,078	1,194	116	10.8
	Trade balance	699	1,050	351	50.2
ME042	Aircraft, spacecraft, and related equipment:				
	Exports	29,439	34,403	4,964	16.9
	Imports	6,369	7,501	1,132	17.8
	Trade balance	23,070	26,902	3,832	16.6
ME043	Ships, tugs, pleasure boats, and similar vessels:				
	Exports	1,291	1,174	-117	-9.1
	Imports	348	279	-69	-19.8
	Trade balance	943	895	-48	-5.1
ME044	Motors and engines, except internal combustion, aircraft, or electric:				
	Exports	105	84	-21	-20.0
	Imports	78	86	8	10.3
	Trade balance	27	-2	-29	-107.4

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
[2] This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS import and export items for trade monitoring purposes.

Source: Compiled from official statistics of the U.S. Department of Commerce.

CHAPTER 8
ELECTRONIC TECHNOLOGY[10]

From 1990 to 1991, the U.S. trade balance in electronic equipment declined by 22 percent, from a deficit of $13.8 billion in 1990 to a deficit of $16.8 billion in 1991 (table 23). During this period, U.S. exports of electronic equipment grew at a slower rate than U.S. imports of these products, ending 4 years of improvements in the U.S. trade balance in these products.

From 1990 to 1991, U.S. exports of electronic technology products increased by 4 percent, rising from $57.3 billion in 1990 to $59.7 billion in 1991. The growth in U.S. exports of electronic equipment was primarily driven by demand in the EC, Japan, and other principal markets and was generally slower than in previous years because overall economic growth was slower in 1991. U.S exports of electronic equipment to the OPEC nations accounted for 17 percent of the growth in U.S. exports of these products in 1991 and consisted primarily of material sent for the purposes of the Gulf War.

Although overall demand for electronic equipment was relatively weak in the U.S. market in 1991, U.S. imports that year showed relatively strong growth. From 1990 to 1991, U.S. imports of electronic equipment increased by nearly 8 percent, from $71.2 billion in 1990 to $76.6 billion in 1991. This growth resulted primarily because U.S.-owned producers increased their reliance on foreign operations or subcontractors, particularly in ASEAN countries and Canada. A portion of the increase in imports can also be attributed to the recovery of commodity semiconductor prices that had plummeted during 1989 and 1990.

U.S. Bilateral Trade

The major U.S. trading partners in electronic technology products in 1991 were Japan, the EC, Canada, and Mexico. The U.S. trade deficit with Japan in these products grew by 5 percent, as the deficit deepened from $20.5 billion in 1990 to $21.5 billion in 1991. During this period, the United States maintained a trade surplus in electronic equipment with the EC and Canada. However, the surplus with the EC declined by 2 percent, falling from $12.1 billion in 1990 to $11.8 billion in 1991. The U.S. trade surplus with Canada declined by 22 percent, slipping from $3.8 billion to $2.9 billion. The U.S. trade deficit with Mexico declined to $490 million in 1991 from $648 million in 1990.

[10] The electronic technology products covered in this section were included with other machinery and equipment in chapter 7 of the USITC 1990 annual report *U.S. Trade Shifts in Selected Commodity Areas*, USITC publication 2380.

Commodity Analyses

Semiconductors

From 1990 to 1991, the U.S. trade balance in semiconductors declined by 59 percent from a trade deficit of $1.3 billion to a trade deficit of $2.1 billion. This decline followed 2 years of improvement in the trade balance in these commodities and occurred as U.S. export growth slowed down and U.S. imports increased.

U.S. exports of semiconductors grew by 1.3 percent from $10.9 billion in 1990 to $11.0 billion in 1991, a significantly slower growth rate than the double-digit rates experienced during the 4 previous years. The slowdown in demand for U.S. exports resulted primarily from a slowdown in economic growth in Japan, the EC, and other key markets for U.S. semiconductors. To a lesser extent, this slowdown in U.S. exports also occurred because U.S.-headquartered firms, in anticipation of changes associated with increasing EC integration, substituted expanded production in the EC for U.S. exports. U.S. export performance in semiconductors in 1991 was also negatively impacted by the recession in the United States. Demand for semiconductors in the United States affects U.S. exports of these products because about 60 percent of them are generally brought back to the United States after assembly and testing overseas.

U.S. imports of semiconductors increased by 7.5 percent from $12.2 billion in 1990 to $13.1 billion in 1991. About half of this increase in U.S. imports was accounted for by Canada and most of the remainder by Japan. U.S. imports of semiconductors from sources other than Canada and Japan did not change appreciably from 1990 to 1991. U.S. imports from Canada rose primarily because a major U.S. manufacturer increased its use of Canada as a base to assemble and test semiconductors constructed from U.S.-made parts. U.S. imports of semiconductors from Japan rose principally as a result of price increases of semiconductor memories, whose production is dominated by Japanese manufacturers. These producers' prices fell dramatically in 1990.

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Articles for making and breaking electrical circuits

Articles for making and breaking electrical circuits include printed circuit boards, integrated circuit module substrates, circuit breakers, switches, connectors, relays, and fuses, as well as enclosures and parts for these devices. In 1991, the U.S. trade balance in these articles declined by 331 percent from a trade deficit of $172 million to a trade deficit of $742 million. This change primarily reflects a decline in U.S. exports of printed circuits to Canada. Industry sources attribute this decline in U.S. exports to a decrease in the reliance of a major Canadian producer on U.S.-made printed circuits. Most U.S. exports of

Table 23
Electronic technology sector: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1990 and 1991[1]

Item	1990	1991	Change from 1990 to 1991 Amount	Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Canada	9,319	9,298	-21	-0.2
Japan	6,211	6,501	290	4.6
Mexico	4,201	4,576	375	8.9
Germany	4,106	4,301	195	4.7
United Kingdom	5,175	4,954	-221	-4.2
Taiwan	2,055	2,108	53	2.5
Republic of Korea	2,070	2,150	80	3.8
France	2,342	2,359	17	0.7
Italy	1,310	1,281	-29	-2.2
China	343	347	4	1.1
Singapore	2,840	2,794	-46	-1.6
All other	17,373	19,065	1,692	9.7
Total	57,345	59,734	2,389	4.2
EC-12	17,552	17,915	363	2.0
OPEC	846	1,245	399	47.1
ASEAN	6,191	6,381	190	3.0
CBERA	508	517	9	1.7
Eastern Europe	109	205	96	88.0
U.S. imports for consumption:				
Canada	5,545	6,354	809	14.5
Japan	26,744	28,019	1,275	4.7
Mexico	4,849	5,066	217	4.4
Germany	1,648	1,914	266	16.1
United Kingdom	1,647	1,855	208	12.6
Taiwan	5,914	6,393	479	8.0
Republic of Korea	5,214	5,248	34	0.6
France	717	740	23	3.2
Italy	397	312	-85	-21.4
China	1,410	2,030	620	43.9
Singapore	6,942	7,171	229	3.2
All other	10,124	11,473	1,349	13.3
Total	71,151	76,575	5,424	7.6
EC-12	5,498	6,149	651	11.8
OPEC	36	103	67	186.1
ASEAN	12,366	13,738	1,372	11.0
CBERA	189	205	16	8.4
Eastern Europe	10	8	-2	-20.0
U.S. merchandise trade balance:				
Canada	3,774	2,944	-830	-21.9
Japan	-20,533	-21,518	-985	-4.7
Mexico	-648	-490	158	24.3
Germany	2,458	2,387	-71	-2.8
United Kingdom	3,528	3,099	-429	-12.1
Taiwan	-3,859	-4,285	-426	-11.0
Republic of Korea	-3,144	-3,098	46	1.4
France	1,625	1,619	-6	-0.3
Italy	913	969	56	6.1
China	-1,067	-1,683	-616	-57.7
Singapore	-4,102	-4,377	-275	-6.7
All other	7,249	7,592	343	4.7
Total	-13,806	-16,841	-3,035	-22.0
EC-12	12,054	11,766	-288	-2.3
OPEC	810	1,142	332	40.9
ASEAN	-6,175	-7,357	-1,182	-19.1
CBERA	319	312	-7	-2.1
Eastern Europe	99	197	98	98.9

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Source: Compiled from official statistics of the U.S. Department of Commerce.

printed circuits to Canada are integrated circuit substrates that are used to mount and encapsulate integrated circuits.

The U.S. trade deficit for articles used for making and breaking electrical circuits, excluding printed circuits from Canada, increased by 41 percent from $367 million in 1990 to $518 million in 1991. During this period, exports of these products increased by less than 3 percent to $4.1 billion, while imports increased by 6 percent to $4.6 billion.

U.S. exports of articles for making and breaking electrical circuits, excluding printed circuits from Canada, were adversely impacted in 1991 by a slowdown in economic growth in Japan, the EC, and other key markets for U.S. semiconductors as well as by increased price competition in foreign markets, particularly in the production of lower-end lines of printed circuit boards and connectors. In addition, U.S. exports of these products were affected in 1991 by a recession in the United States. The recession dampened demand for coproduced capital goods, such as computers and other electronic equipment, which are assembled in Canada, Mexico, and Southeast Asia, using articles exported from the United States.

Canada, Japan, Mexico, and West Germany were the largest providers of U.S. imports of articles for making and breaking electrical circuits, and all increased their supply of these imports during 1991. Increased U.S. imports of these products resulted primarily from a rise in demand for these and other electronic components during the latter part of 1991 as producers of electronic equipment eased their tight inventory controls.

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Automatic data processing machines

Whereas U.S. imports of automatic data processing (ADP) machines increased by 17 percent in 1991, U.S. exports increased by only 4 percent, resulting in a 129-percent increase in the U.S. trade deficit in ADP machines from approximately $1.6 billion to $3.7 billion. Although the trade deficit increased significantly in 1991, the current trade deficit in ADP machines is still well below the $4.8 billion trade deficit recorded in 1988.

Imports of input and output (I/O) units, storage units, complete computers, and incomplete computers were important import segments in 1991. I/O units for ADP machines and storage units together accounted for 71 percent, or $12.8 billion, of total U.S. ADP machine imports in 1991. These products have consistently accounted for more than 70 percent of total ADP machine imports during the last 5 years. In 1991, U.S. imports of I/O units rose by 15 percent, whereas imports of storage units increased by 6 percent. Most imports of these products are from producers in Asian countries. Producers in Japan alone account for more than half of the total imports of I/O units, followed by Taiwan, South Korea, and Singapore. Producers in Singapore and Japan dominate U.S. imports of storage units, accounting for over 75 percent of total storage unit imports. Although imports of complete computers increased 74 percent in 1991, these products were only 3.8 percent of total imports. Concurrently, imports of incomplete computers increased 54 percent and accounted for 18 percent of total ADP product imports.

Incomplete digital computers (38 percent), storage units (20 percent), and I/O units (18 percent) accounted for 76 percent of U.S. exports of ADP products in 1991. The major export markets for incomplete digital computers are Japan, Canada, and the United Kingdom. Canada, Germany, and the United Kingdom are the leading export markets for storage units and I/O units. In 1991, exports of digital computers, storage units, and I/O units increased 6 percent, 8 percent, and 9 percent, respectively.

The major contributor to changing trade patterns in ADP products is the globalization of the computer industry. Many U.S.-based firms have entered joint production ventures, original-equipment-manufacturing agreements, licensing agreements, and other arrangements with foreign-based firms. Cooperation between companies in different countries, all of whom contribute to a project, has increased the foreign content of the resulting products. In order to enter and to better serve markets overseas, some U.S.-based companies have begun producing in Europe and Asia, rather than exporting these products from the United States.

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Table 24
Electronic technology sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
ST001	Office machines:				
	Exports	10,921	11,637	716	6.6
	Imports	11,455	11,932	477	4.2
	Trade balance	-534	-295	239	44.8
ST002	Telephone and telegraph apparatus:				
	Exports	2,893	3,149	256	8.8
	Imports	4,488	4,841	353	7.9
	Trade balance	-1,595	-1,692	-97	-6.1
ST003	Microphones, loudspeakers, audio amplifiers and combinations thereof:				
	Exports	582	669	87	14.9
	Imports	1,121	1,070	-51	-4.6
	Trade balance	-539	-401	138	25.6
ST004	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players:				
	Exports	461	483	22	4.8
	Imports	4,539	4,814	275	6.1
	Trade balance	-4,078	-4,331	-253	-6.2
ST005	Unrecorded magnetic tapes, discs, and other media:				
	Exports	1,706	1,759	53	3.1
	Imports	1,474	1,673	199	13.5
	Trade balance	232	86	-146	-62.9
ST006	Records, tapes, compact discs, computer software, and other recored media:				
	Exports	1,872	2,201	329	17.6
	Imports	316	379	63	19.9
	Trade balance	1,556	1,822	266	17.1
ST007	Radio transmission and reception apparatus, and combinations thereof:				
	Exports	3,467	3,510	43	1.2
	Imports	5,051	5,368	317	6.3
	Trade balance	-1,584	-1,858	-274	-17.3
ST008	Radio navigational aid, radar, and remote control apparatus:				
	Exports	1,218	1,244	26	2.1
	Imports	448	496	48	10.7
	Trade balance	770	748	-22	-2.9
ST009	Television receivers and video monitors and combinations including television receivers:				
	Exports	1,025	1,075	50	4.9
	Imports	3,174	3,103	-71	-2.2
	Trade balance	-2,149	-2,028	121	5.6
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus:				
	Exports	206	236	30	14.6
	Imports	2,569	2,755	186	7.2
	Trade balance	-2,363	-2,519	-156	-6.6
ST011	Electric sound and visual signaling apparatus:				
	Exports	331	418	87	26.3
	Imports	872	921	49	5.6
	Trade balance	-541	-503	38	7.0
ST012	Electrical capacitors, and resistors:				
	Exports	766	818	52	6.8
	Imports	879	884	5	0.6
	Trade balance	-113	-66	47	41.6

See footnotes at end of table.

Table 24--Continued
Electronic technology sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits:				
	Exports	5,280	4,870	-410	-7.8
	Imports	5,452	5,612	160	2.9
	Trade balance	-172	-742	-570	-331.4
ST014	Television picture tubes and other cathode ray tubes:				
	Exports	430	565	135	31.4
	Imports	648	679	31	4.8
	Trade balance	-218	-114	104	47.7
ST015	Special-purpose tubes:				
	Exports	211	194	-17	-8.1
	Imports	133	137	4	3.0
	Trade balance	78	57	-21	-26.9
ST016	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices:				
	Exports	10,857	10,999	142	1.3
	Imports	12,169	13,081	912	7.5
	Trade balance	-1,312	-2,082	-770	-58.7
ST017	Electrical and electronic articles, apparatus, and parts not elsewhere provided for:				
	Exports	1,314	1,589	275	20.9
	Imports	946	815	-131	-13.8
	Trade balance	368	774	406	110.3
ST018	Automatic data processing machines:				
	Exports	13,804	14,316	512	3.7
	Imports	15,416	18,014	2,598	16.9
	Trade balance	-1,612	-3,698	-2,086	-129.4

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
[2] This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS import and export items for trade monitoring purposes.

Source: Compiled from official statistics of the U.S. Department of Commerce.

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CHAPTER 9
MISCELLANEOUS MANUFACTURES

As during 1989-90, U.S. exports of miscellaneous manufactures continued to expand during 1990-91, rising by $2.2 billion (up 8 percent) from $28.5 billion in 1990 to $30.7 billion in 1991 (table 25). Similarly, U.S. imports of miscellaneous manufactures also increased during the period, though the growth was more than offset by the performance of U.S. exports of these products. Imports rose $1.1 billion, or by 3 percent, from $40.7 billion in 1990 to $41.8 billion during 1991. The U.S. trade deficit in the miscellaneous manufactures sector improved to $11.1 billion in 1991, decreasing by $1.1 billion or 9 percent from the $12.2 billion deficit recorded in 1990.

U.S. trade in medical goods; measuring, testing, and controlling equipment; furniture; and games and fairground amusements all recorded significant gains. Exports of medical goods rose by 17 percent during 1991, as compared with 1990, to $6.2 billion. The trade surplus in medical goods rose by 21 percent to $2.4 billion. The export rise resulted, in major part, from trade in higher valued capital equipment and advanced-technology electronic devices, rather than ordinary hospital and medical equipment.

Trade in measuring, testing, and controlling instruments benefitted from greater demand for more precise measuring and controlling instruments by manufacturing industries abroad, which helped spark a 9-percent rise in exports to $7.8 billion in 1991, as compared with similar exports in 1990. The surplus in trade of such products rose by 11 percent to $4.1 billion.

Exports of furniture increased by 30 percent during 1991, as compared with that in 1990, to $2.3 billion. The deficit in trade of furniture improved by 18 percent and declined to $2.8 billion. U.S. furniture producers benefit from continuing reductions in the relatively higher Canadian tariffs under the U.S.-Canada Free-Trade Agreement and from lower production costs of furniture exported to Canada, the major U.S. market.

The trade position of games and fairground amusements improved as a result of decreased imports of home video games and parts, due to declining demand resulting from near market saturation of home video game systems using 8-bit memory chips. U.S. exports of games and fairground amusements rose by 25 percent during 1991, as compared with similar exports in 1990, to $0.7 billion; the resulting trade deficit improved by 38 percent and declined to $1.4 billion.

Toys and models experienced the most significant decline in trade position of miscellaneous manufactures products. Imports of toys and models rose by 6 percent in 1991, as compared to 1990, to $2.9 billion; the trade deficit in toys and models increased to $2.5 billion. Domestic producers, along with other foreign toy manufacturers, continue to shift production to China to take advantage of lower wage rates and larger labor pools.

U.S. Bilateral Trade

The major U.S. trading partners for miscellaneous manufactures during 1991 were the EC, Japan, Canada, Taiwan, and Mexico. These markets together accounted for 72 percent of total U.S. exports of miscellaneous manufactures during 1991, a proportion unchanged from 1989. The share of exports accounted for by the EC was also unchanged in 1991, totaling 33 percent, while the shares for Canada and Japan decreased by 1 percentage point each, to 15 and 14 percent, respectively. Principal products exported were medical goods, scientific instruments, arms and ammunition, cameras and other photographic supplies, and furniture. U.S. imports from these nations represented 65 percent of the value of total imports of miscellaneous manufactures in 1991, down from 68 percent in 1990. Following the overall trend, imports from the EC and Japan declined in 1991. The EC supplied 23 percent of the total (down from 25 percent in 1990), and Japan supplied 19 percent (down from 20 percent). The shares of imports from Taiwan, Canada, and Mexico were unchanged, and accounted for 12, 6, and 5 percent of the total, respectively. Principal products imported were furniture, scientific instruments, medical goods, games and fairground amusements, precious jewelry, toys and models, and luggage.

U.S. trade with the EC benefitted from the efforts of Germany to purchase more expensive medical capital equipment and advanced-technology electronic medical devices in order to improve the level of health care in eastern Germany. Major gains in trade with Canada resulted from increased demand for sophisticated measuring, testing, and controlling instruments, and expanded trade in furniture due to use of the U.S.-Canada Free-Trade Agreement. U.S. imports of toys and models from China rose as major world suppliers continued to shift manufacturing resources to that nation in order to take advantage of lower wages and a larger pool of workers.

Commodity Analyses

Medical goods

Continuing a trend that began in the mid-1980s, the U.S. surplus in trade of medical goods expanded significantly in 1991 from the previous year, by 21 percent to $2.4 billion. Although U.S. exports grew by almost 17 percent to $6.2 billion, trade in both directions grew as evidenced by a more than 14-percent increase in U.S. imports of medical goods to $3.8 billion. Almost one-half of U.S. exports of medical goods consisted of x-ray and other electromedical equipment and U.S. imports of such equipment accounted for slightly less than 40 percent of such trade. This reflects a recent tendency for trade

Table 25
Miscellaneous manufactures sector: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1990 and 1991[1]

Item	1990	1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Canada	4,485	4,740	255	5.6
Japan	4,356	4,166	-190	-4.3
Mexico	1,755	2,322	567	32.3
Germany	2,163	2,684	521	24.0
United Kingdom	2,357	2,341	-16	-0.6
Taiwan	626	725	99	15.8
Republic of Korea	883	950	67	7.5
France	1,508	1,673	165	10.9
Italy	791	833	42	5.3
China	240	346	106	44.1
Singapore	520	565	45	8.6
All other	8,789	9,342	553	6.2
Total	28,473	30,687	2,214	7.8
EC-12	9,304	10,065	761	8.1
OPEC	673	1,166	493	73.2
ASEAN	877	992	115	13.1
CBERA	507	521	14	2.7
Eastern Europe	99	92	-7	-7.0
U.S. imports for consumption:				
Canada	2,347	2,319	-28	-1.1
Japan	8,219	8,037	-182	-2.2
Mexico	1,835	2,102	267	14.5
Germany	2,541	2,553	12	0.4
United Kingdom	2,070	2,042	-28	-1.3
Taiwan	4,980	5,093	113	2.2
Republic of Korea	1,841	1,662	-179	-9.7
France	1,435	1,351	-84	-5.8
Italy	2,560	2,375	-185	-7.2
China	3,905	5,046	1,141	29.2
Singapore	254	309	55	21.6
All other	8,692	8,884	192	2.1
Total	40,679	41,773	1,094	2.7
EC-12	10,081	9,746	-335	-3.3
OPEC	121	183	62	51.2
ASEAN	1,904	2,221	317	16.6
CBERA	313	369	56	17.8
Eastern Europe	215	191	-24	-11.1
U.S. merchandise trade balance:				
Canada	2,138	2,421	283	13.2
Japan	-3,863	-3,871	-8	-0.2
Mexico	-80	220	300	375.0
Germany	-378	131	509	134.6
United Kingdom	287	299	12	4.1
Taiwan	-4,354	-4,368	-14	-0.3
Republic of Korea	-958	-712	246	25.6
France	73	322	249	341.0
Italy	-1,769	-1,542	227	12.8
China	-3,665	-4,700	-1,035	-28.2
Singapore	266	256	-10	-3.7
All other	97	458	361	373.1
Total	-12,206	-11,086	1,120	9.2
EC-12	-777	319	1,096	141.0
OPEC	552	983	431	78.0
ASEAN	-1,027	-1,229	-202	-19.6
CBERA	194	152	-42	-21.6
Eastern Europe	-116	-99	17	14.6

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Source: Compiled from official statistics of the U.S. Department of Commerce.

in medical goods to consist of more expensive capital equipment and advanced-technology electronic devices as opposed to ordinary hospital and medical instruments and supplies such as needles, syringes, tongue depressors, and orthopedic devices.

The European Community was by far the largest market for U.S. exports of medical equipment, accounting for $2.6 billion, or over 40 percent of the total in 1991. This represented a 21-percent growth in U.S. exports to that region compared to 1990 and contributed greatly to the overall increase in the U.S.-EC balance of trade for these products in 1991. U.S. exports to Germany, the second-leading trading partner of the United States in medical equipment, and which traditionally has maintained a significant trade surplus with the United States in such goods, grew by 26 percent to $682 million. During the same period, U.S. imports from Germany increased more slowly, by less than 12 percent to $911 million, narrowing the U.S. deficit in medical goods with that country by $43 million. Industry analysts attribute the improved U.S. success in Germany in 1991 to a concerted effort by that reunified country to raise the level of health care in eastern Germany to that in the west German states. Reportedly, the most pressing needs were for capital and high-technology electromedical equipment, which the U.S. industry was in a good position to provide and which even the relatively strong west German industry could not meet based on its present capacity. The United States posted surpluses with each of the other European countries, with significant increases to France and Belgium. Industry sources point out that much of the U.S. trade with France involves intracompany shipments between the major U.S. producer of imaging equipment and a principal French-based manufacturer of radiological equipment acquired several years ago by the U.S. company.

Japan remained the largest single-country trading partner of the United States in this sector. Although U.S. imports from that country increased by 15 percent to $969 million, Japan continued to be the largest individual foreign market for U.S. sales of medical equipment, absorbing U.S. imports of $861 million in 1991, an increase of 14 percent from the previous year. Three-quarters of Japan's exports to the United States consisted of electromedical and x-ray equipment, led by medium-technology, lower priced medical imaging equipment, dialysis apparatus, and fiber-optic endoscopy equipment for which the country is particularly renowned. U.S. exports to Japan consisted of premium-level medical imaging equipment such as CT Scanners, magnetic resonance devices, and traditional x-ray equipment, with which its major foreign competitor in the Japanese market is a major German electronics company. The U.S. industry also dominates the Japanese market with sales of catheters and pacemakers.

Two other major trading partners of the United States in this sector were Canada and Mexico. However, there were no major shifts in medical goods trade with those two countries in 1991. A 3-percent increase in U.S. exports to Canada, to $721 million, increased the U.S. surplus with that country to $654 million. The U.S. industry increased its exports to Mexico by 19 percent to $322 million while increasing its imports from that country by 24 percent to $332 million, leaving U.S. trade with those two countries roughly in balance. The larger portion of the trade between Mexico and the United States consisted of shipments by U.S. companies of components and parts for assembly into finished goods by Mexican subsidiaries and subcontractors to be exported to the United States. This was done by the U.S. companies to take advantage of relatively lower Mexican labor rates and to benefit from favorable tariff treatment afforded such trade under U.S. HTS subheading 9802.00.80.

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Measuring, testing, controlling, and analyzing instruments

The trade surplus for measuring, testing, controlling, and analyzing instruments (instruments) reached $4.1 billion in 1991, up 11 percent from a surplus of $3.7 billion in 1990. The rising U.S. surplus reflects a 9-percent increase in U.S. exports, from $7.1 billion to $7.8 billion, and an 8-percent growth in U.S. imports, from $3.4 billion to $3.6 billion.

In terms of value, Canada was the largest market for U.S.-made instruments in 1991, accounting for 16 percent of total U.S. exports, followed by Japan with 14 percent, and Mexico with 9 percent. The U.S. export markets that experienced the largest growth were Japan, which increased by 10 percent to $1,068 million, followed by Mexico, which grew by 34 percent to $710 million. The 9-percent gain in U.S. exports in 1991, when compared to 1990, was primarily due to an increase in foreign demand for more precise instruments used as capital equipment in manufacturing industries. Technology-intensive instruments and systems are increasingly being used by industry to become more productive and to assure the quality of their products. The 34-percent increase in U.S. exports to Mexico was due mostly to the expanding manufacturing and process industries in that country, as well as the growth in the assembly of instruments and parts in Mexico's maquila industry. It should be noted that U.S. exports of instruments to Canada rose by less than 1 percent in 1991, when compared with such exports in 1990. This contrasts sharply with the 86-percent increase in U.S. exports of instruments to Canada that occurred during the first 2 years of the United States-Canada Free-Trade Agreement.

In terms of value, Japan was the largest source of U.S. imports of instruments in 1991, accounting for 26 percent of total U.S. imports, followed by Germany with 14 percent, Canada and the United Kingdom with 12 percent each and Mexico with 8 percent. The three countries that experienced the largest gains as a source of U.S. imports were Japan, Canada, and Mexico. In 1991, U.S. imports from Japan grew by 10 percent, to

$937 million, when compared with instrument imports in 1990. It is believed that intracorporate trade between Japanese corporations and their subsidiaries in the United States contributed to the growth in U.S. imports from Japan. U.S. imports from Canada in 1991 grew by 13 percent, to $428 million, when compared with such trade in 1990. During the period, U.S. imports from Mexico rose by 20 percent, to $303 million. It is believed that the growth in U.S. imports from Mexico was primarily due to an increase in intracorporate trade between U.S. companies and their subsidiaries in Mexico. U.S. imports in 1991 under U.S. HTS subheading 9802.00.80 increased by 19 percent over that in the previous year, to $270 million, and accounted for 89 percent of total U.S. imports of instruments from Mexico.

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Furniture

Led by growth in U.S. exports of wood furniture to Canada and motor vehicle seats to Canada and Mexico, the U.S. trade deficit in furniture declined $3.3 billion in 1990 to $2.7 billion in 1991. The decline in the trade deficit is the second consecutive significant decrease in the deficit ($545 million and 14 percent in 1990, and $594 million and 18 percent in 1991); although the trade deficit in furniture declined continuously during 1987-91. U.S. exports of furniture rose from $1.7 billion in 1990 to $2.3 billion in 1991; while U.S. imports dipped slightly from $5.04 billion to $4.98 billion. U.S. exports of furniture rose at an average annual rate of 37 percent during 1987-91, compared with imports which rose at an average annual rate of 2 percent. Canada and Mexico were the largest markets for U.S. exports of furniture, accounting for 41 and 24 percent, respectively, in 1991. Taiwan and Canada were the most significant sources of U.S. imports of furniture in 1991, each accounting for 22 percent of the total, followed by Mexico, which accounted for 13 percent.

U.S. manufacturers of wood furniture also have certain specific advantages in the Canadian market in addition to favorable exchange rates and lower labor costs in the United States than in Canada. Wood furniture manufacturers in Canada often do not have access to inexpensive sources of lumber used in furniture. Such lumber must be kiln dried; many Canadian producers do not have the sales volume needed to support their own drying operations and must import kiln-dried lumber. Furthermore, there is a strong Canadian market for furniture made from the wood of certain varieties of trees (oak and cherry) that are not found in abundance in Canada. In addition, industry sources report that the implementation of the U.S.-Canada Free-Trade Agreement has encouraged certain Canadian furniture companies to move production operations to the United States in order to more efficiently serve both the U.S. and Canadian markets. U.S. exports of wood furniture to Canada rose by 36 percent in 1991 over such exports in 1990, to $352 million. The U.S. trade balance with Canada in wood furniture went from a deficit of $50 million in 1990, to a surplus of $48 million in 1991.

The U.S. trade deficit in motor vehicle seats declined from $609 million in 1990 to $316 million in 1991. Canada and Mexico were the United States' largest trading partners in motor vehicle seats; combined they accounted for 80 percent of U.S. imports in 1991, and virtually all of U.S. exports. U.S. trade in motor vehicle seats is the result of the highly rationalized nature of North American car production. Such U.S. trade with Canada and Mexico involves the export of U.S.-made seat parts for assembly into either seat covers or complete seats. Some assembled products are then imported back into the United States under the provisions of Harmonized Tariff Schedule heading 9802.00.80, or in the case of Canada, under the Automotive Products Trade Act and 9802.00.80. U.S. imports of motor vehicle seats in 1991 under 9802.00.80 accounted for 18 percent of U.S. imports of furniture from Canada, and 56 percent of furniture imports from Mexico. U.S. imports of motor vehicle furniture from Mexico are mostly seat covers while those from Canada are usually completed car seats.

The trade deficit with Canada in motor vehicle seats improved from $373 million in 1990 to $186 million in 1991 as imports fell by 23 percent to $411 million and exports rose by 41 percent to $225 million. The decrease in U.S. imports is the result of Canadian motor vehicle seat manufacturers being particularly hard hit by the decrease in U.S. motor vehicle production. The increase in U.S. exports of motor vehicle seats reflects rising production costs in Canada compared with that in the United States, giving U.S. motor vehicle seat producers an edge over those in Canada.

The U.S. trade balance with Mexico in motor vehicle seats went from a deficit of $72 million in 1990 to a surplus of $41 million in 1991 as exports grew by 77 percent to $380 million, while imports increased by 18 percent to $340 million. A growing portion of motor vehicle seats (including seat covers) assembled in Mexico from U.S.-made parts is destined for cars assembled in Mexico rather than re-entry into the United States as seats destined for the U.S. auto assembly industry.

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Games and fairground amusements

The U.S. trade deficit in the games and fairground amusements sector fell from $2.2 billion in 1990 to $1.4 billion in 1991, a reduction of 38 percent. Although U.S. exports rose and U.S. imports declined by almost the same percentage, the growth in exports was not enough to erase the trade deficit because of the larger import base. U.S. exports increased 25 percent to $684 million in 1991 while U.S. imports decreased 26 percent to $2.1 billion. Home video games and

parts accounted for the bulk of the decrease in imports in the games and fairground amusements sector in 1991 (89 percent), while arcade-type games accounted for most (56 percent) of the growth in exports.

Imports of home video game parts (mostly cartridges) fell 46 percent to $509 million in 1991; home video games (consoles) declined 21 percent to $782 million. The decrease in imports of home video games and parts was due in part to the near saturation of the U.S. market for 8-bit video game console systems and cartridges that resulted in a reduction in retail sales, and in part to the promotion of 16-bit video game console systems with compatible cartridges. Eight-bit video game console systems are in one out of every eight U.S. households. The 16-bit video game console system has a graphic chip that generates much more advanced video images than the 8-bit chip, but the 16-bit systems cost about twice as much at retail as the 8-bit systems (an average of $170 compared with $80-$90).

Japan remained the principal source of U.S. imports of games and fairground amusements, accounting for 75 percent of total imports ($1.6 billion) in 1991, down from a share of 82 percent ($2.3 billion) in 1990. Taiwan and China were far behind as the second- and third-leading suppliers in 1991; Taiwan accounted for 9 percent ($180 million) of total imports, and China, 8 percent ($168 million). Most of the imports from Japan were home video game systems and cartridges, whereas imports from Taiwan and China were chiefly hand-held games.

U.S. exports of games and fairground amusements consisted primarily of coin-operated games and parts (37 percent), bowling amusements (24 percent), fairground amusements (12 percent), and home video games and parts (12 percent) in 1991. A 43-percent increase ($77 million) in exports of coin-operated games and a 50-percent increase ($29 million) in fairground amusements accounted for 77 percent of the increase in total U.S. exports of games and fairground amusements in 1991. The leading markets for U.S. exports of games and fairground amusements were Canada (14 percent); France and Germany (12 percent each); and Japan and Korea (10 percent each) in 1991.

Coin-operated games such as arcade video games, pinball machines, and casino game machines were the main contributors to the 46-percent rise in exports of coin-operated games. Exports of arcade video games increased 72 percent to $64 million in 1991, with Canada accounting for 57 percent of the growth in exports.

U.S. exports of pinball machines and casino game machines increased 37 percent to $150 million in 1991, with the European market accounting for 69 percent ($103 million) of such exports. Ninety percent of such exports to Europe were casino game machines. The latest versions of casino game machines incorporate optical illusions, lasers, and state-of-the-art graphics and sound.

U.S. exports of fairground amusements increased 50 percent to $82 million in 1991. France and Mexico were the leading markets, accounting for $46 million and $12 million of total exports, respectively, in 1991. The growth in exports of fairground amusements to France is largely a result of construction of Walt Disney Company's fourth park, Euro Disney, near Paris.

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Toys and models

The U.S. trade deficit in toys and models worsened by $159 million, or by 7 percent, during 1991 when compared with that of the previous year, rising from $2.3 billion to $2.5 billion. Although historically the trade deficit in toys and models has increased almost every year during the past 15 years, the trade deficit in 1991 marked the widest deficit in toys and models for any year during 1987-91. U.S. imports of toys and models increased by $164 million, or 6 percent, rising from $2.7 billion in 1990 to $2.9 billion in 1991. The increase in imports in 1991 outpaced the rise in U.S. exports, which grew by $5 million, or 1 percent, from $382 million in 1990 to $387 million.

The largest increases in U.S. imports of toys occurred in several categories of toys supplied primarily by China, including toys (except models) incorporating an electric motor, certain nonmetal toys (except stuffed toys) representing animals or nonhuman creatures, and various nonmotorized toys. Increased imports of toy building blocks, bricks, and shapes also occurred, chiefly supplied by Denmark.

China accounted for the largest increase in U.S. imports of toys and models; such imports expanded by $283 million, or 24 percent, from $1.2 billion in 1990 to $1.5 billion in 1991. Spurred by rising labor costs and loss of Generalized System of Preference status in other Asian producers such as Hong Kong, Taiwan, and Korea, China's share of U.S. imports of toys and models rose from 44 percent in 1990 to 51 percent in 1991. To a lesser degree, U.S. imports of toys and models also increased from Canada, Denmark, Mexico, and Thailand. Conversely, U.S. imports of toys and models declined from Hong Kong, Japan, Korea, Macao, and Taiwan. Four of the five Asian countries that underwent declining trade in toys with the United States in 1991 have experienced considerable erosion in their U.S. market shares since the advent of China as a major player in the mid-1980s. For example, Korea was the leading U.S. supplier of toys and models in 1987, providing $645 million, or 25 percent, of imported toys. By 1991, Korea's share as a U.S. supplier declined to 8 percent, at $233 million, and Korea's rank slipped to a distant second behind China. Much toy manufacturing has shifted from U.S. and foreign producers to China in order to benefit from that country's lower wage rates and larger supply of workers.

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Table 26
Miscellaneous manufactures sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Percent
		Million dollars			
GM001	Photographic supplies:				
	Exports	1,719	1,791	72	4.2
	Imports	1,409	1,486	77	5.5
	Trade balance	310	305	-5	-1.6
GM002	Exposed photographic plates, film, and paper:				
	Exports	110	102	-8	-7.3
	Imports	88	81	-7	-8.0
	Trade balance	22	21	-1	-4.5
GM003	Luggage, handbags, and flatgoods:				
	Exports	133	159	26	19.5
	Imports	2,171	2,281	110	5.1
	Trade balance	-2,038	-2,122	-84	-4.1
GM004	Certain other leather goods:				
	Exports	44	63	19	43.2
	Imports	148	140	-8	-5.4
	Trade balance	-104	-77	27	26.0
GM005	Musical instruments and accessories:				
	Exports	293	303	10	3.4
	Imports	727	713	-14	-1.9
	Trade balance	-434	-410	24	5.5
GM006	Umbrellas, whips, riding crops, and canes:				
	Exports	8	10	2	25.0
	Imports	146	143	-3	-2.1
	Trade balance	-138	-133	5	3.6
GM007	Silverware and certain other articles of precious metal or metal clad with precious metal:				
	Exports	85	127	42	49.4
	Imports	50	41	-9	-18.0
	Trade balance	35	86	51	145.7
GM008	Precious jewelry and related articles:				
	Exports	428	428	0	0
	Imports	2,608	2,589	-19	-0.7
	Trade balance	-2,180	-2,161	19	0.9
GM009	Costume jewelry and related articles:				
	Exports	110	123	13	11.8
	Imports	461	491	30	6.5
	Trade balance	-351	-368	-17	-4.8
GM010	Bicycles:				
	Exports	114	174	60	52.6
	Imports	750	745	-5	-0.7
	Trade balance	-636	-571	65	10.2
GM011	Optical fibers, optical fiber bundles and cables:				
	Exports	172	247	75	43.6
	Imports	62	57	-5	-8.1
	Trade balance	110	190	80	72.7
GM012	Optical goods, including ophthalmic goods:				
	Exports	985	1,071	86	8.7
	Imports	1,872	1,920	48	2.6
	Trade balance	-887	-849	38	4.3
GM013	Photographic cameras and equipment:				
	Exports	764	807	43	5.6
	Imports	1,560	1,728	168	10.8
	Trade balance	-796	-921	-125	-15.7

See footnotes at end of table.

Table 26--Continued
Miscellaneous manufactures sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Percent
		Million dollars			
GM014	Medical goods:				
	Exports	5,317	6,206	889	16.7
	Imports	3,292	3,762	470	14.3
	Trade balance	2,025	2,444	419	20.7
GM015	Surveying and navigational instruments:				
	Exports	1,519	1,734	215	14.2
	Imports	479	499	20	4.2
	Trade balance	1,040	1,235	195	18.8
GM016	Watches:				
	Exports	120	126	6	5.0
	Imports	1,443	1,855	412	28.6
	Trade balance	-1,323	-1,729	-406	-30.7
GM017	Clocks and timing devices:				
	Exports	89	100	11	12.4
	Imports	233	317	84	36.1
	Trade balance	-144	-217	-73	-50.7
GM018	Arms and ammunition:				
	Exports	2,336	2,311	-25	-1.1
	Imports	463	515	52	11.2
	Trade balance	1,873	1,796	-77	-4.1
GM019	Furniture and selected furnishings:				
	Exports	1,731	2,256	525	30.3
	Imports	5,050	4,981	-69	-1.4
	Trade balance	-3,319	-2,725	594	17.9
GM020	Writing instruments and related articles:				
	Exports	193	207	14	7.3
	Imports	447	451	4	0.9
	Trade balance	-254	-244	10	3.9
GM021	Lamps and lighting fittings:				
	Exports	315	373	58	18.4
	Imports	1,311	1,295	-16	-1.2
	Trade balance	-996	-922	74	7.4
GM022	Prefabricated buildings:				
	Exports	171	276	105	61.4
	Imports	34	21	-13	-38.2
	Trade balance	137	255	118	86.1
GM023	Children's vehicles:				
	Exports	23	28	5	21.7
	Imports	179	206	27	15.1
	Trade balance	-156	-178	-22	-14.1
GM024	Dolls:				
	Exports	17	21	4	23.5
	Imports	772	845	73	9.5
	Trade balance	-755	-824	-69	-9.1
GM025	Toys and models:				
	Exports	382	387	5	1.3
	Imports	2,716	2,880	164	6.0
	Trade balance	-2,334	-2,493	-159	-6.8
GM026	Games and fairground amusements:				
	Exports	547	684	137	25.0
	Imports	2,818	2,091	-727	-25.8
	Trade balance	-2,271	-1,407	864	38.0

See footnotes at end of table.

Table 26--Continued
Miscellaneous manufactures sector: U.S. trade for selected commodity groups, by specified periods, 1990 and 1991[1]

USITC Code[2]	Commodity group	1990	1991	Change from 1990 to 1991 Amount	Change from 1990 to 1991 Percent
		Million dollars			
GM027	Sporting goods:				
	Exports	828	930	102	12.3
	Imports	1,644	1,750	106	6.4
	Trade balance	-816	-820	-4	-0.5
GM028	Smokers' articles:				
	Exports	59	77	18	30.5
	Imports	130	132	2	1.5
	Trade balance	-71	-55	16	22.5
GM029	Brooms, brushes, and hair grooming articles:				
	Exports	74	95	21	28.4
	Imports	423	453	30	7.1
	Trade balance	-349	-358	-9	-2.6
GM030	Apparel fasteners:				
	Exports	51	59	8	15.7
	Imports	90	109	19	21.1
	Trade balance	-39	-50	-11	-28.2
GM031	Miscellaneous articles:				
	Exports	2,493	1,503	-990	-39.7
	Imports	3,522	3,347	-175	-5.0
	Trade balance	-1,029	-1,844	-815	-79.2
GM032	Balances of a sensitivity of 5 cg or better:				
	Exports	11	14	3	27.3
	Imports	28	31	3	10.7
	Trade balance	-17	-17	0	0
GM033	Drawing and mathematical calculating or measuring instruments:				
	Exports	136	138	2	1.5
	Imports	183	196	13	7.1
	Trade balance	-47	-58	-11	-23.4
GM034	Measuring, testing, controlling, and analyzing instruments:				
	Exports	7,098	7,757	659	9.3
	Imports	3,369	3,621	252	7.5
	Trade balance	3,729	4,136	407	10.9
GM035	Footwear and footwear parts:				
	Exports	477	541	64	13.4
	Imports	9,538	9,542	4	(3)
	Trade balance	-9,061	-9,001	60	0.7

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
[2] This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS import and export items for trade monitoring purposes.
[3] Less than 0.05 percent.

Source: Compiled from official statistics of the U.S. Department of Commerce.

APPENDIX A
LISTING OF COMMODITY/INDUSTRY GROUPS COVERED IN THE REPORT

Agricultural, animal, and vegetable products sector

AG001	Certain miscellaneous live animals, offals, meat, and animal products
AG002	Cattle and beef
AG003	Swine and pork
AG004	Sheep and meat of sheep
AG005	Poultry
AG006	Fresh or chilled fish
AG007	Frozen fish
AG008	Fish canned, cured, or otherwise prepared, and live fish
AG009	Shellfish
AG010	Dairy produce
AG011	Eggs
AG012	Sugar and other sweeteners
AG013	Animal feeds
AG014	Live plants
AG015	Seeds
AG016	Cut flowers
AG017	Miscellaneous vegetable substances
AG018	Fresh, chilled, or frozen vegetables
AG019	Prepared or preserved vegetables, mushrooms, and olives
AG020	Edible nuts
AG021	Tropical fruit
AG022	Citrus fruit
AG023	Deciduous fruit
AG024	Other fresh fruit
AG025	Dried fruit other than tropical
AG026	Frozen fruit
AG027	Prepared or preserved fruit
AG028	Coffee and tea
AG029	Spices
AG030	Cereals
AG031	Milled grains, malts, and starches
AG032	Oilseeds
AG033	Animal or vegetable fats and oils
AG034	Edible preparations
AG035	Cocoa, chocolate, and confectionery
AG036	Fruit and vegetable juices
AG037	Nonalcoholic beverages, excluding fruit and vegetable juices
AG038	Malt beverages
AG039	Wine and certain other fermented beverages
AG040	Distilled spirits
AG041	Unmanufactured tobacco
AG042	Cigars, and certain other manufactured tobacco
AG043	Cigarettes
AG044	Hides, skins, and leather
AG045	Furskins

Forest products sector

AG046	Logs and rough wood products
AG047	Lumber
AG048	Moldings, millwork, and joinery
AG049	Structural panel products
AG050	Wooden containers
AG051	Tools and tool handles of wood
AG052	Miscellaneous articles of wood
AG053	Cork and rattan
AG054	Pulp and wastepaper
AG055	Paper boxes and bags
AG056	Industrial papers and paperboards
AG057	Newsprint

Forest products sector—Continued

AG058	Printing and writing papers
AG059	Certain specialty papers
AG060	Miscellaneous paper products
AG061	Printed matter

Fibers, textiles, and apparel sector

TX001	Textile fibers and waste
TX002	Spun yarns
TX003	Filament yarns
TX004	Miscellaneous yarns
TX005	Broadwoven fabrics
TX006	Knit fabrics
TX007	Miscellaneous fabrics
TX008	Coated, covered, impregnated, or laminated textile fabrics
TX009	Cordage, nets, and netting
TX010	Certain textile articles and fabrics suitable for industrial use
TX011	Miscellaneous textiles and articles
TX012	Sacks and bags of textile materials
TX013	Carpets and rugs
TX014	Home furnishings
TX015	Men's and boys' suits and sports coats
TX016	Men's and boys' coats and jackets
TX017	Men's and boys' trousers
TX018	Women's and girls' trousers
TX019	Shirts and blouses
TX020	Sweaters
TX021	Women's and girls' suits, skirts, and coats
TX022	Women's and girls' dresses
TX023	Robes, nightwear, and underwear
TX024	Hosiery
TX025	Body-supporting garments
TX026	Neckwear
TX027	Gloves, including gloves for sports
TX028	Headwear
TX029	Leather apparel and accessories
TX030	Fur apparel and other fur articles
TX031	Rubber, plastic, and coated-fabric apparel
TX032	Nonwoven and related products
TX033	Other wearing apparel

Energy and chemicals sector

CH001	Electrical energy
CH002	Nuclear materials
CH003	Coal and other carbonaceous materials
CH004	Coal chemicals
CH005	Crude petroleum
CH006	Petroleum products
CH007	Natural gas and components
CH008	Major primary olefins
CH009	Other olefins
CH010	Benzene, toluene, and mixed xylenes
CH011	Benzenoid commodity chemicals
CH012	Benenoid specialty chemicals
CH013	Miscellaneous organic chemicals
CH014	Selected inorganic chemicals and elements
CH015	Inorganic acids
CH016	Salts and other inorganic chemicals
CH017	Chlor-alkali chemicals

Energy and chemicals sector—Continued

CH018	Industrial gases
CH019	Fertilizers
CH020	Certain inorganic pigments
CH021	Synthetic organic pigments
CH022	Synthetic dyes and couplers
CH023	Synthetics tanning agents
CH024	Natural tanning and dyeing materials
CH025	Photographic chemicals and preparations
CH026	Pesticide products and formulations
CH027	Adhesives and glues
CH028	Medicinal chemicals, except antibiotics
CH029	Antibiotics
CH030	Essential oils and other flavoring materials
CH031	Perfumes, cosmetics, and toiletries
CH032	Soaps, detergents, and surface-active agents
CH033	Fatty chemicals
CH034	Miscellaneous chemical specialties
CH035	Paints, inks, and related items
CH036	Explosives and propellant powders
CH037	Polyethylene resins in primary forms
CH038	Polypropylene resins in primary forms
CH039	PVC resins in primary forms
CH040	Styrene polymers in primary forms
CH041	PET and other polyester resins
CH042	Other plastics in primary forms
CH043	SBR rubber in primary forms
CH044	Natural rubber and other synthetic rubber
CH045	Pneumatic tires and tubes (new)
CH046	Other tires
CH047	Plastic or rubber semifabricated forms
CH048	Plastic containers and closures
CH049	Hose, belting and plastic pipe
CH050	Miscellaneous rubber or plastics products
CH051	Gelatin

Minerals and metals sector

MM001	Clays and nonmetallic minerals and products, not elsewhere specified or included
MM002	Certain miscellaneous mineral substances
MM003	Iron ores and concentrates
MM004	Copper ores and concentrates
MM005	Lead ores and residues
MM006	Zinc ores and residues
MM007	Certain ores, concentrates, ash, and residues
MM008	Precious metal ores and concentrates
MM009	Certain nonmetallic minerals and articles
MM010	Refractory and heat-insulating articles
MM011	Ceramic bricks and miscellaneous ceramic construction articles
MM012	Ceramic floor and wall tiles
MM013	Ceramic sanitary fixtures
MM014	Ceramic table, toilet, and kitchen articles
MM015	Miscellaneous ceramic articles
MM016	Flat glass and certain flat glass products
MM017	Glass containers
MM018	Household glassware
MM019	Certain glass and glass products
MM020	Fiber glass products
MM021	Natural and synthetic gemstones
MM022	Precious metals and related articles
MM023	Pig iron

Minerals and metals sector—Continued

MM024	Ferroalloys
MM025	Iron and steel waste and scrap
MM026	Direct reduced iron, ferrous powders, and grit and shot
MM027	Steel mill products, all grades
MM028	Steel pipe and tube fittings, and certain cast products
MM029	Fabricated structurals
MM030	Metal construction components
MM031	Metallic containers
MM032	Wire products of iron, steel, aluminum, copper, and nickel
MM033	Chain
MM034	Industrial fasteners of base metal
MM035	Cooking and kitchen ware
MM036	Metal sanitary ware
MM037	Iron construction castings and other nonmalleable cast-iron articles
MM038	Copper and related articles
MM039	Unwrought aluminum
MM040	Aluminum mill products
MM041	Lead and related articles
MM042	Zinc and related articles
MM043	Certain base metals and chemical elements
MM044	Nonpowered handtools
MM045	Cutlery other than tableware, certain sewing implements, and related products
MM046	Table flatware and related products
MM047	Certain builders' hardware
MM048	Miscellaneous products of base metal

Machinery and equipment sector

ME001	Aircraft engines and gas turbines
ME002	Internal combustion piston engines, other than for aircraft
ME003	Pumps for liquids
ME004	Fans, blowers, compressors, air and vacuum pumps, and air-conditioning equipment
ME005	Certain industrial thermal-processing equipment and certain furnaces
ME006	Commercial machinery
ME007	Electrical household appliances and certain heating equipment
ME008	Centrifuges and filtering and purifying equipment
ME009	Wrapping, packaging, and can-sealing machinery
ME010	Scales and weighing machinery
ME011	Forklift trucks and similar industrial vehicles
ME012	Construction and mining equipment
ME013	Mineral processing machinery
ME014	Farm and garden machinery and equipment
ME015	Industrial food-processing and related machinery
ME016	Pulp, paper, and paperboard machinery
ME017	Printing, typesetting, and bookbinding machinery and printing plates
ME018	Textile machinery and parts
ME019	Metal rolling mills and parts thereof
ME020	Machine tools for cutting metal and parts; tool holders, work holders; dividing heads and other special attachments for machine tools
ME021	Machine tools for metal forming and parts thereof
ME022	Non-metalworking machine tools and parts thereof
ME023	Miscellaneous industrial machinery
ME024	Taps, cocks, valves, and similar devices
ME025	Ball and roller bearings
ME026	Gear boxes and other speed changers; torque converters; ball screws; flywheels and pulleys; clutches and shaft couplings; universal joints; and parts thereof
ME027	Boilers, turbines, and related machinery
ME028	Electric motors, generators, and related equipment
ME029	Electrical transformers, static converters, and inductors
ME030	Primary cells and batteries and electric storage batteries

Machinery and equipment sector—Continued

ME031	Portable electric handtools
ME032	Nonelectrically powered hand tools and parts thereof
ME033	Ignition, starting, lighting, and other electrical equipment
ME034	Flashlights and other similar electric lights, light bulbs and fluorescent tubes; arc lamps
ME035	Electric and gas welding and soldering equipment
ME036	Insulated electrical wire and cable, and conduit; glass and ceramic insulators
ME037	Rail locomotive and rolling stock
ME038	Automobiles, trucks, buses, and bodies and chassis of the foregoing
ME039	Certain motor-vehicle parts
ME040	Motorcycles, mopeds, and parts
ME041	Miscellaneous vehicles and transportation-related equipment
ME042	Aircraft, spacecraft, and related equipment
ME043	Ships, tugs, pleasure boats, and similar vessels
ME044	Motors and engines, except internal combustion, aircraft, or electric

Electronic technology sector

ST001	Office machines
ST002	Telephone and telegraph apparatus
ST003	Microphones, loudspeakers, audio amplifiers and combinations thereof
ST004	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players
ST005	Unrecorded magnetic tapes, discs, and other media
ST006	Records, tapes, compact discs, computer software, and other recorded media
ST007	Radio transmission and reception apparatus, and combinations thereof
ST008	Radio navigational aid, radar, and remote control apparatus
ST009	Television receivers and video monitors and combinations including television receivers
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus
ST011	Electric sound and visual signaling apparatus
ST012	Electrical capacitors, and resistors
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits
ST014	Television picture tubes and other cathode ray tubes
ST015	Special-purpose tubes
ST016	Diodes, transistors, integrated circuits and similar semiconductor solid-stated devices
ST017	Electrical and electronic articles, apparatus and parts not elsewhere provided for
ST018	Automatic data processing machines

Miscellaneous manufactures sector

GM001	Photographic supplies
GM002	Exposed photographic plates, film, and paper
GM003	Luggage, handbags, and flatgoods
GM004	Certain other leather goods
GM005	Musical instruments and accessories
GM006	Umbrellas, whips, riding crops, and canes
GM007	Silverware and certain other articles of precious metal or metal clad with precious metal
GM008	Precious jewelry and related articles
GM009	Costume jewelry and related articles
GM010	Bicycles
GM011	Optical fibers, optical fiber bundles and cables
GM012	Optical goods, including ophthalmic goods
GM013	Photographic cameras and equipment
GM014	Medical goods
GM015	Surveying and navigational instruments
GM016	Watches
GM017	Clocks and timing devices
GM018	Arms and ammunition

Miscellaneous manufactures sector—Continued

GM019	Furniture and selected furnishings
GM020	Writing instruments and related articles
GM021	Lamps and lighting fittings
GM022	Prefabricated buildings
GM023	Children's vehicles
GM024	Dolls
GM025	Toys and models
GM026	Games and fairground amusements
GM027	Sporting goods
GM028	Smokers' articles
GM029	Brooms, brushes, and hair grooming articles
GM030	Apparel fasteners
GM031	Miscellaneous articles
GM032	Balances of a sensitivity of 5 cgs or better
GM033	Drawing and mathematical calculating and measuring instruments
GM034	Measuring, testing, controlling, and analyzing instruments
GM035	Footwear and footwear parts

APPENDIX B
PROFILE OF U.S. INDUSTRY AND MARKET, BY COMMODITY/INDUSTRY GROUPS, 1989-91

Note.—These data have been estimated by the Commission's international trade analysts on the basis of primary and secondary data sources including discussions with various Government and industry contacts. These estimated data are subject to change either from future secondary sources or from the detailed surveys the Commission often conducts in the course of statutory investigations or other work. Further, these data may undergo adjustments based on revisions in tariff nomenclature, clarifications of classification practices, or redefinitions of industry classes.

Table B-1
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
	Agriculture, fisheries, and forest products:			
AG001	Certain miscellaneous live animals, meat, offals, and animal products:			
	Establishments (number)	163,183	156,865	150,397
	Employees (thousands)	205	203	189
	Capacity utilization (percent)	1/	1/	1/
	U.S. production (million dollars)	5,600	6,100	6,200
	U.S. exports (million dollars)	1,150	1,302	1,446
	U.S. imports (million dollars)	947	1,001	1,000
	Apparent U.S. consumption (million dollars)	5,397	5,799	5,754
	Trade balance (million dollars)	203	301	446
	Ratio of imports to apparent consumption (percent)	17.5	17.3	17.4
	Ratio of exports to production (percent)	20.5	21.3	23.3
AG002	Cattle and beef:			
	Establishments (number)	1,324,500	1,289,600	1,247,575
	Employees (thousands)	1,409	1,373	1,367
	Capacity utilization (percent)	1/	1/	1/
	U.S. production (million dollars)	40,600	42,900	44,000
	U.S. exports (million dollars)	1,500	1,634	1,908
	U.S. imports (million dollars)	2,131	2,647	2,646
	Apparent U.S. consumption (million dollars)	41,231	43,913	44,738
	Trade balance (million dollars)	(631)	(1,013)	(738)
	Ratio of imports to apparent consumption (percent)	5.2	6.0	5.9
	Ratio of exports to production (percent)	3.7	3.8	4.3
AG003	Swine and pork:			
	Establishments (number)	307,324	279,040	257,418
	Employees (thousands)	364	334	236
	Capacity utilization (percent)	1/	1/	1/
	U.S. shipments (million dollars)	15,600	18,000	17,500
	U.S. exports (million dollars)	312	298	315
	U.S. imports (million dollars)	495	607	573
	Apparent U.S. consumption (million dollars)	15,783	18,309	17,758
	Trade balance (million dollars)	(183)	(309)	(258)
	Ratio of imports to apparent consumption (percent)	3.1	3.3	3.2
	Ratio of exports to shipments (percent)	2.0	1.7	1.8
AG004	Sheep and meat of sheep:			
	Establishments (number)	111,140	108,940	105,710
	Employees (thousands)	111	109	106
	Capacity utilization (percent)	2/	2/	2/
	U.S. shipments (million dollars)	475	460	487
	U.S. exports (million dollars) 3/	17	24	36
	U.S. imports (million dollars)	47	40	37
	Apparent U.S. consumption (million dollars) 4/	505	476	488
	Trade balance (million dollars)	(30)	(16)	(1)
	Ratio of imports to apparent consumption (percent)	9.3	8.4	7.6
	Ratio of exports to shipments (percent)	3.6	5.2	7.4
AG005	Poultry:			
	Establishments (number)	350	300	300
	Employees (thousands)	166	173	182
	Capacity utilization (percent)	90	90	90
	U.S. production (million dollars)	16,614	17,750	18,950
	U.S. exports (million dollars)	600	775	930
	U.S. imports (million dollars)	26	28	28
	Apparent U.S. consumption (million dollars)	16,040	17,003	18,048
	Trade balance (million dollars)	574	747	902
	Ratio of imports to apparent consumption (percent)	0.2	0.2	0.2
	Ratio of exports to production (percent)	3.6	4.4	4.9

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
AG006	Fresh or chilled fish:			
	Establishments (number)	90,000	90,000	85,000
	Employees (thousands)	225	225	200
	Capacity utilization (percent)	1/	1/	1/
	U.S. shipments (million dollars)	2,500	2,500	2,500
	U.S. exports (million dollars)	155	164	160
	U.S. imports (million dollars)	611	592	615
	Apparent U.S. consumption (million dollars)	2,956	2,928	2,955
	Trade balance (million dollars)	(456)	(428)	(455)
	Ratio of imports to apparent consumption (percent)	20.7	20.2	20.8
	Ratio of exports to shipments (percent)	6.2	6.6	6.4
AG007	Frozen fish:			
	Establishments (number)	900	900	860
	Employees (thousands)	70	70	65
	Capacity utilization (percent)	75	75	75
	U.S. shipments (million dollars)	600	600	600
	U.S. exports (million dollars)	1,236	1,572	1,641
	U.S. imports (million dollars)	1,485	1,377	1,467
	Apparent U.S. consumption (million dollars)	849	405	426
	Trade balance (million dollars)	(249)	195	174
	Ratio of imports to apparent consumption (percent)	174.9	340.0	344.4
	Ratio of exports to shipments (percent)	206.0	262.0	273.5
AG008	Fish, canned, cured, or otherwise prepared, and live fish:			
	Establishments (number)	700	700	650
	Employees (thousands)	26	26	20
	Capacity utilization (percent)	80	85	75
	U.S. shipments (million dollars)	1,700	1,800	1,600
	U.S. exports (million dollars)	342	330	427
	U.S. imports (million dollars)	724	682	759
	Apparent U.S. consumption (million dollars)	2,082	2,152	1,932
	Trade balance (million dollars)	(382)	(352)	(332)
	Ratio of imports to apparent consumption (percent)	34.8	31.7	39.3
	Ratio of exports to shipments (percent)	20.1	18.3	26.7
AG009	Shellfish:			
	Establishments (number)	850	800	800
	Employees (thousands)	57	60	60
	Capacity utilization (percent)	66	66	66
	U.S. production (million dollars)	1,512	1,600	1,600
	U.S. exports (million dollars)	577	754	852
	U.S. imports (million dollars)	2,623	2,555	2,794
	Apparent U.S. consumption (million dollars)	3,558	3,401	3,542
	Trade balance (million dollars)	(2,046)	(1,801)	(1,942)
	Ratio of imports to apparent consumption (percent)	73.7	75.1	78.9
	Ratio of exports to production (percent)	38.2	47.1	53.3
AG010	Dairy produce:			
	Establishments (number)	207,000	205,000	195,000
	Employees (thousands)	790	785	770
	Capacity utilization (percent)	82	82	82
	U.S. shipments (million dollars)	42,568	45,616	43,613
	U.S. exports (million dollars)	365	282	325
	U.S. imports (million dollars)	815	853	756
	Apparent U.S. consumption (million dollars)	43,018	46,187	44,044
	Trade balance (million dollars)	(450)	(571)	(431)
	Ratio of imports to apparent consumption (percent)	1.9	1.8	1.7
	Ratio of exports to shipments (percent)	0.9	0.6	0.7

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
AG011	Eggs:			
	Establishments (number)	80	80	75
	Employees (thousands)	9	9	8
	Capacity utilization (percent)	85	85	85
	U.S. production (million dollars)	4,386	4,574	4,600
	U.S. exports (million dollars)	88	99	140
	U.S. imports (million dollars)	28	24	20
	Apparent U.S. consumption (million dollars)	4,326	4,499	4,480
	Trade balance (million dollars)	60	75	120
	Ratio of imports to apparent consumption (percent)	0.6	0.5	0.4
	Ratio of exports to production (percent)	2.0	2.2	3.0
AG012	Sugar and other sweeteners:			
	Establishments (number)	103	100	100
	Employees (thousands)	33	32	32
	Capacity utilization (percent)	88	86	87
	U.S. shipments (million dollars)	7,920	7,920	8,000
	U.S. exports (million dollars)	277	362	362
	U.S. imports (million dollars)	776	978	844
	Apparent U.S. consumption (million dollars)	8,419	8,536	8,482
	Trade balance (million dollars)	(499)	(616)	(482)
	Ratio of imports to apparent consumption (percent)	9.2	11.5	10.0
	Ratio of exports to shipments (percent)	3.5	4.6	4.5
AG013	Animal feeds:			
	Establishments (number)	2,445	2,445	2,445
	Employees (thousands)	60	60	60
	Capacity utilization (percent)	85	85	85
	U.S. production (million dollars)	24,000	25,000	26,000
	U.S. exports (million dollars)	3,132	2,950	3,323
	U.S. imports (million dollars)	380	378	399
	Apparent U.S. consumption (million dollars)	21,248	22,428	23,076
	Trade balance (million dollars)	2,752	2,572	2,924
	Ratio of imports to apparent consumption (percent)	1.8	1.7	1.7
	Ratio of exports to production (percent)	13.1	11.8	12.8
AG014	Live plants:			
	Establishments (number)	25,000	25,000	25,000
	Employees (thousands)	125	125	125
	Capacity utilization (percent)	2/	2/	2/
	U.S. shipments (million dollars)	7,433	8,291	1/
	U.S. exports (million dollars)	52	104	106
	U.S. imports (million dollars)	147	162	177
	Apparent U.S. consumption (million dollars)	7,528	8,349	1/
	Trade balance (million dollars)	(95)	(58)	(71)
	Ratio of imports to apparent consumption (percent)	2.0	1.9	1/
	Ratio of exports to shipments (percent)	0.7	1.3	1/
AG015	Seeds:			
	Establishments (number)	15,000	15,000	14,000
	Employees (thousands)	230	230	200
	Capacity utilization (percent)	85	85	80
	U.S. shipments (million dollars)	2,000	2,000	2,000
	U.S. exports (million dollars)	245	262	289
	U.S. imports (million dollars)	126	122	135
	Apparent U.S. consumption (million dollars)	1,881	1,860	1,846
	Trade balance (million dollars)	119	140	154
	Ratio of imports to apparent consumption (percent)	6.7	6.6	7.3
	Ratio of exports to shipments (percent)	12.3	13.1	14.5

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
AG016	Cut flowers:			
	Establishments (number)	3,000	3,000	3,000
	Employees (thousands)	39	39	39
	Capacity utilization (percent)	2/	2/	2/
	U.S. shipments (million dollars)	507	528	1/
	U.S. exports (million dollars)	11	30	34
	U.S. imports (million dollars)	316	326	322
	Apparent U.S. consumption (million dollars)	812	824	1/
	Trade balance (million dollars)	(305)	(296)	(288)
	Ratio of imports to apparent consumption (percent)	38.9	39.6	1/
	Ratio of exports to shipments (percent)	2.2	5.7	1/
AG017	Miscellaneous vegetable substances:			
	Firms (number)	112	112	112
	Employees (thousands)	2	2	2
	Capacity utilization (percent)	2/	2/	2/
	U.S. production (million dollars)	850 5/	850 5/	850 5/
	U.S. exports (million dollars)	341	361	392
	U.S. imports (million dollars)	461	514	552
	Apparent U.S. consumption (million dollars)	970	1,003	1,010
	Trade balance (million dollars)	(120)	(153)	(160)
	Ratio of imports to apparent consumption (percent)	47.5	51.2	54.7
	Ratio of exports to production (percent)	40.1	42.5	46.1
AG018	Fresh, chilled, or frozen vegetables:			
	Establishments (number)	38,000	36,500	34,000
	Employees (thousands)	45	43	42
	Capacity utilization (percent)	2/	2/	2/
	U.S. production (million dollars)	4,036	4,120	4,220
	U.S. exports (million dollars)	418	777	883
	U.S. imports (million dollars)	934	1,151	1,041
	Apparent U.S. consumption (million dollars)	4,552	4,494	4,378
	Trade balance (million dollars)	(516)	(374)	(158)
	Ratio of imports to apparent consumption (percent)	20.5	25.6	23.8
	Ratio of exports to production (percent)	10.4	18.9	20.9
AG019	Prepared or preserved vegetables, mushrooms, and olives:			
	Establishments (number)	2,070	2,020	2,010
	Employees (thousands)	5	5	5
	Capacity utilization (percent)	85	78	82
	U.S. production (million dollars)	7,123	7,542	7,631
	U.S. exports (million dollars)	760	976	972
	U.S. imports (million dollars)	815	786	777
	Apparent U.S. consumption (million dollars)	7,178	7,352	7,436
	Trade balance (million dollars)	(55)	190	195
	Ratio of imports to apparent consumption (percent)	11.4	10.7	10.4
	Ratio of exports to production (percent)	10.7	12.9	12.7
AG020	Edible nuts:			
	Establishments (number)	70,000	70,000	70,000
	Employees (thousands)	350	350	350
	Capacity utilization (percent)	2/	2/	2/
	U.S. shipments (million dollars)	2,137	2,421	2,495
	U.S. exports (million dollars)	885	1,019	1,067
	U.S. imports (million dollars)	344	401	433
	Apparent U.S. consumption (million dollars)	1,596	1,803	1,861
	Trade balance (million dollars)	541	618	634
	Ratio of imports to apparent consumption (percent)	21.6	22.2	23.3
	Ratio of exports to shipments (percent)	41.4	42.1	42.8

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
AG021	Tropical fruit:			
	Establishments (number)	3,000	3,000	3,000
	Employees (thousands)	10	10	10
	Capacity utilization (percent)	2/	2/	2/
	U.S. shipments (million dollars)	417	379	402
	U.S. exports (million dollars)	42	55	56
	U.S. imports (million dollars)	963	1,062	1,132
	Apparent U.S. consumption (million dollars)	1,338	1,386	1,478
	Trade balance (million dollars)	(921)	(1,007)	(1,076)
	Ratio of imports to apparent consumption (percent)	72.0	76.6	76.6
	Ratio of exports to shipments (percent)	10.1	14.5	13.9
AG022	Citrus fruit:			
	Establishments (number)	17,200	16,900	16,600
	Employees (thousands)	80	80	79
	Capacity utilization (percent)	2/	2/	2/
	U.S. shipments (million dollars)	2,663	2,247	2,494
	U.S. exports (million dollars)	593	583	614
	U.S. imports (million dollars)	74	89	148
	Apparent U.S. consumption (million dollars)	2,144	1,753	2,028
	Trade balance (million dollars)	519	494	466
	Ratio of imports to apparent consumption (percent)	3.5	5.1	7.3
	Ratio of exports to shipments (percent)	22.3	25.9	24.6
AG023	Deciduous fruit:			
	Farms (number)	93,000	93,000	93,000
	Employees (thousands)	100	100	100
	Capacity utilization (percent)	2/	2/	2/
	U.S. shipments (million dollars)	2,219	2,519	2,486
	U.S. exports (million dollars)	302	477	517
	U.S. imports (million dollars)	15	114	127
	Apparent U.S. consumption (million dollars)	2,032	2,156	2,096
	Trade balance (million dollars)	187	363	390
	Ratio of imports to apparent consumption (percent)	5.7	5.3	6.1
	Ratio of exports to shipments (percent)	13.6	18.9	20.8
AG024	Other fresh fruits:			
	Establishments (number)	20,000	20,000	20,000
	Employees (thousands)	30	30	30
	Capacity utilization (percent)	2/	2/	2/
	U.S. shipments (million dollars)	709	818	798
	U.S. exports (million dollars)	225	405	414
	U.S. imports (million dollars)	421	506	511
	Apparent U.S. consumption (million dollars)	905	919	895
	Trade balance (million dollars)	(196)	(101)	(97)
	Ratio of imports to apparent consumption (percent)	46.5	55.1	57.1
	Ratio of exports to shipments (percent)	31.7	49.5	51.9
AG025	Dried fruit, other than tropical:			
	Establishments (number)	10,000	10,000	10,000
	Employees (thousands)	20	20	20
	Capacity utilization (percent)	2/	2/	2/
	U.S. shipments (million dollars)	610	496	481
	U.S. exports (million dollars)	276	326	344
	U.S. imports (million dollars)	34	33	34
	Apparent U.S. consumption (million dollars)	368	203	171
	Trade balance (million dollars)	242	293	310
	Ratio of imports to apparent consumption (percent)	9.2	16.3	19.9
	Ratio of exports to shipments (percent)	45.2	65.7	71.5

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
AG026	Frozen fruit:			
	Establishments (number)	200	200	200
	Employees (thousands)	40	40	40
	Capacity utilization (percent)	2/	2/	2/
	U.S. shipments (million dollars)	512	557	556
	U.S. exports (million dollars)	32	42	48
	U.S. imports (million dollars)	47	56	57
	Apparent U.S. consumption (million dollars)	527	571	565
	Trade balance (million dollars)	(15)	(14)	(9)
	Ratio of imports to apparent consumption (percent)	8.9	9.8	10.1
	Ratio of exports to shipments (percent)	6.3	7.5	8.6
AG027	Prepared or preserved fruit:			
	Establishments (number)	200	200	200
	Employees (thousands)	40	40	40
	Capacity utilization (percent)	2/	2/	2/
	U.S. shipments (million dollars)	3,228	3,348	3,360
	U.S. exports (million dollars)	97	121	149
	U.S. imports (million dollars)	323	324	359
	Apparent U.S. consumption (million dollars)	3,454	3,551	3,570
	Trade balance (million dollars)	(226)	(203)	(210)
	Ratio of imports to apparent consumption (percent)	9.4	9.1	10.1
	Ratio of exports to shipments (percent)	3.0	3.6	4.4
AG028	Coffee and tea:			
	Establishments (number)	165	171	1/
	Employees (thousands)	16	16	1/
	Capacity utilization (percent)	87	88	1/
	U.S. shipments (million dollars)	8,704	9,053	10,000
	U.S. exports (million dollars)	101	95	102
	U.S. imports (million dollars)	2,563	2,045	1,986
	Apparent U.S. consumption (million dollars)	11,166	11,003	11,884
	Trade balance (million dollars)	(2,462)	(1,950)	(1,884)
	Ratio of imports to apparent consumption (percent)	23.0	18.6	16.7
	Ratio of exports to shipments (percent)	1.2	1.0	1.0
AG029	Spices:			
	Establishments (number)	75	78	1/
	Employees (thousands)	8	9	1/
	Capacity utilization (percent)	78	78	1/
	U.S. shipments (million dollars)	1,253	1,278	1,300
	U.S. exports (million dollars)	24	34	38
	U.S. imports (million dollars)	258	216	223
	Apparent U.S. consumption (million dollars)	1,487	1,460	1,485
	Trade balance (million dollars)	(234)	(182)	(185)
	Ratio of imports to apparent consumption (percent)	17.4	14.8	15.0
	Ratio of exports to shipments (percent)	1.9	2.7	2.9
AG030	Cereals:			
	Establishments (number)	576,000	576,000	576,000
	Employees (thousands)	2,500	2,500	2,500
	Capacity utilization (percent)	2/	2/	2/
	U.S. production (million dollars)	35,000	35,000	36,000
	U.S. exports (million dollars)	14,814	11,941	10,096
	U.S. imports (million dollars)	381	314	354
	Apparent U.S. consumption (million dollars)	20,567	23,373	26,258
	Trade balance (million dollars)	14,433	11,627	9,742
	Ratio of imports to apparent consumption (percent)	1.9	1.3	1.3
	Ratio of exports to production (percent)	42.3	34.1	28.0

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
AG031	Milled grains, malts, and starches:			
	Establishments (number)	583	583	583
	Employees (thousands)	35	35	35
	Capacity utilization (percent)	85	85	85
	U.S. production (million dollars)	8,300	8,300	8,400
	U.S. exports (million dollars)	466	391	410
	U.S. imports (million dollars)	115	103	99
	Apparent U.S. consumption (million dollars)	7,949	8,012	8,089
	Trade balance (million dollars)	351	288	311
	Ratio of imports to apparent consumption (percent)	1.4	1.3	1.2
	Ratio of exports to production (percent)	5.6	4.7	4.9
AG032	Oilseeds:			
	Farms (thousands)	475	461	450
	Employees (thousands)	1/	1/	1/
	Capacity utilization (percent)	1/	1/	1/
	U.S. production (million dollars)	12,439	11,663	12,065
	U.S. exports (million dollars)	4,088	3,705	4,124
	U.S. imports (million dollars)	162	179	119
	Apparent U.S. consumption (million dollars)	8,513	8,137	8,060
	Trade balance (million dollars)	3,926	3,526	4,005
	Ratio of imports to apparent consumption (percent)	1.9	2.2	1.5
	Ratio of exports to production (percent)	32.9	31.8	34.2
AG033	Animal or vegetable fats and oils:			
	Establishments (number)	322	300	280
	Employees (thousands)	32	32	32
	Capacity utilization (percent)	87	84	84
	U.S. shipments (million dollars)	5,900	5,900	5,900
	U.S. exports (million dollars)	1,329	1,172	1,123
	U.S. imports (million dollars)	663	684	734
	Apparent U.S. consumption (million dollars)	5,234	5,412	5,511
	Trade balance (million dollars)	666	488	389
	Ratio of imports to apparent consumption (percent)	12.7	12.6	13.3
	Ratio of exports to shipments (percent)	22.5	19.9	19.0
AG034	Edible preparations:			
	Establishments (number)	5,100	5,100	5,100
	Employees (thousands)	395	395	395
	Capacity utilization (percent)	84	85	84
	U.S. production (million dollars)	83,335	89,168	93,742
	U.S. exports (million dollars)	1,013	1,440	1,941
	U.S. imports (million dollars)	873	966	1,125
	Apparent U.S. consumption (million dollars)	83,195	88,694	92,926
	Trade balance (million dollars)	140	474	816
	Ratio of imports to apparent consumption (percent)	1.0	1.1	1.2
	Ratio of exports to production (percent)	1.2	1.6	2.1
AG035	Cocoa, chocolate, and confectionery:			
	Establishments (number)	685	685	685
	Employees (thousands)	57	57	57
	Capacity utilization (percent)	75	75	75
	U.S. shipments (million dollars)	8,278	8,682	9,082
	U.S. exports (million dollars)	237	328	345
	U.S. imports (million dollars)	1,158	1,267	1,302
	Apparent U.S. consumption (million dollars)	9,199	9,621	10,039
	Trade balance (million dollars)	(921)	(939)	(957)
	Ratio of imports to apparent consumption (percent)	12.6	13.2	13.0
	Ratio of exports to shipments (percent)	2.9	3.8	3.8

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
AG036	Fruit and vegetable juices:			
	Establishments (number)	100	100	100
	Employees (thousands)	90	90	90
	Capacity utilization (percent)	2/	2/	2/
	U.S. shipments (million dollars)	2,000	2,000	2,000
	U.S. exports (million dollars)	291	375	385
	U.S. imports (million dollars)	739	1,000	793
	Apparent U.S. consumption (million dollars)	2,448	2,625	2,408
	Trade balance (million dollars)	(448)	(625)	(408)
	Ratio of imports to apparent consumption (percent)	30.2	38.1	32.9
	Ratio of exports to shipments (percent)	14.6	18.8	19.3
AG037	Nonalcoholic beverages, excluding fruit and vegetable juices:			
	Establishments (number)	838	838	838
	Employees (thousands)	57	57	57
	Capacity utilization (percent)	75	75	75
	U.S. shipments (million dollars)	10,863	11,300	11,639
	U.S. exports (million dollars)	104	117	154
	U.S. imports (million dollars)	206	218	242
	Apparent U.S. consumption (million dollars)	10,965	11,401	11,727
	Trade balance (million dollars)	(102)	(101)	(88)
	Ratio of imports to apparent consumption (percent)	1.9	1.9	2.1
	Ratio of exports to shipments (percent)	1.0	1.0	1.3
AG038	Malt beverages:			
	Firms (number)	32	33	33
	Employees (thousands)	32	31	31
	Capacity utilization (percent)	1/	1/	1/
	U.S. shipments (million dollars)	14,195	14,876	15,025
	U.S. exports (million dollars)	107	139	169
	U.S. imports (million dollars)	839	907	813
	Apparent U.S. consumption (million dollars)	14,927	15,644	15,669
	Trade balance (million dollars)	(732)	(768)	(644)
	Ratio of imports to apparent consumption (percent)	5.6	5.8	5.2
	Ratio of exports to shipments (percent)	0.8	0.9	1.1
AG039	Wine and certain other fermented beverages:			
	Establishments (number)	1,573	1,610	1,610
	Employees (thousands)	14	13	13
	Capacity utilization (percent)	1/	1/	1/
	U.S. shipments (million dollars)	3,301	3,284	3,137
	U.S. exports (million dollars)	99	127	147
	U.S. imports (million dollars)	937	924	920
	Apparent U.S. consumption (million dollars)	4,139	4,081	3,910
	Trade balance (million dollars)	(838)	(797)	(773)
	Ratio of imports to apparent consumption (percent)	22.6	22.6	23.5
	Ratio of exports to shipments (percent)	3.0	3.9	4.7
AG040	Distilled spirits:			
	Establishments (number)	42	40	40
	Employees (thousands)	8	7	7
	Capacity utilization (percent)	1/	1/	1/
	U.S. shipments (million dollars)	3,465	3,680	3,496
	U.S. exports (million dollars)	227	254	279
	U.S. imports (million dollars)	1,358	1,511	1,304
	Apparent U.S. consumption (million dollars)	4,596	4,937	4,521
	Trade balance (million dollars)	(1,131)	(1,257)	(1,025)
	Ratio of imports to apparent consumption (percent)	29.5	30.6	28.8
	Ratio of exports to shipments (percent)	6.6	6.9	8.0

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
AG041	Unmanufactured tobacco:			
	Establishments (number)	130,000	130,000	130,000
	Employees (thousands)	1/	1/	1/
	Capacity utilization (percent)	2/	2/	2/
	U.S. production (million dollars)	2,400	2,700	2,800
	U.S. exports (million dollars)	1,341	1,441	1,428
	U.S. imports (million dollars)	550	583	736
	Apparent U.S. consumption (million dollars)	1,609	1,842	2,108
	Trade balance (million dollars)	791	858	692
	Ratio of imports to apparent consumption (percent)	34.2	31.7	34.9
	Ratio of exports to production (percent)	55.9	53.4	51.0
AG042	Cigars, and certain other manufactured tobacco:			
	Establishments (number)	40	40	40
	Employees (thousands)	5	5	5
	Capacity utilization (percent)	1/	1/	1/
	U.S. shipments (million dollars)	1,250	1,300	1,230
	U.S. exports (million dollars)	263	279	342
	U.S. imports (million dollars)	60	63	79
	Apparent U.S. consumption (million dollars)	1,047	1,084	967
	Trade balance (million dollars)	203	216	263
	Ratio of imports to apparent consumption (percent)	5.7	5.8	8.2
	Ratio of exports to shipments (percent)	21.0	21.5	27.8
AG043	Cigarettes:			
	Establishments (number)	12	12	12
	Employees (thousands)	30	29	29
	Capacity utilization (percent)	1/	1/	1/
	U.S. shipments (million dollars)	19,600	20,400	20,500
	U.S. exports (million dollars)	3,369	4,761	4,232
	U.S. imports (million dollars)	28	31	120
	Apparent U.S. consumption (million dollars)	16,259	15,670	16,388
	Trade balance (million dollars)	3,341	4,730	4,112
	Ratio of imports to apparent consumption (percent)	0.2	0.2	0.7
	Ratio of exports to shipments (percent)	17.2	23.3	20.6
AG044	Hides, skins, and leather:			
	Establishments (number)	1,494	1,389	1,301
	Employees (thousands)	19	19	17
	Capacity utilization (percent)	76	76	76
	U.S. shipments (million dollars)	4,595	4,989	4,919
	U.S. exports (million dollars)	2,197	2,372	1,967
	U.S. imports (million dollars)	855	788	693
	Apparent U.S. consumption (million dollars)	3,253	3,405	3,645
	Trade balance (million dollars)	1,342	1,584	1,274
	Ratio of imports to apparent consumption (percent)	26.3	23.1	19.0
	Ratio of exports to shipments (percent)	47.8	47.5	40.0
AG045	Furskins:			
	Establishments (number)	940	786	752
	Employees (thousands)	4	3	3
	Capacity utilization (percent)	81	76	73
	U.S. shipments (million dollars)	220	229	152
	U.S. exports (million dollars)	232	205	154
	U.S. imports (million dollars)	146	100	75
	Apparent U.S. consumption (million dollars)	134	124	73
	Trade balance (million dollars)	86	105	79
	Ratio of imports to apparent consumption (percent)	109.0	80.6	102.7
	Ratio of exports to shipments (percent)	105.5	89.5	101.3

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
AG046	Logs and rough wood products:			
	Establishments (number)	11,100	10,800	10,000
	Employees (thousands)	75	72	70
	Capacity utilization (percent)	85	80	70
	U.S. shipments (million dollars)	12,000	12,300	11,600
	U.S. exports (million dollars)	2,862	2,973	2,765
	U.S. imports (million dollars)	304	305	301
	Apparent U.S. consumption (million dollars)	9,442	9,632	9,136
	Trade balance (million dollars)	2,558	2,668	2,464
	Ratio of imports to apparent consumption (percent)	3.2	3.2	3.3
	Ratio of exports to shipments (percent)	23.9	24.2	23.8
AG047	Lumber:			
	Establishments (number)	5,710	5,690	5,680
	Employees (thousands)	144	142	133
	Capacity utilization (percent)	90	85	85
	U.S. shipments (million dollars)	17,151	16,448	15,626
	U.S. exports (million dollars)	2,047	2,138	2,220
	U.S. imports (million dollars)	3,024	2,671	2,644
	Apparent U.S. consumption (million dollars)	18,128	16,981	16,050
	Trade balance (million dollars)	(977)	(533)	(424)
	Ratio of imports to apparent consumption (percent)	16.7	15.7	16.5
	Ratio of exports to shipments (percent)	11.9	13.0	14.2
AG048	Moldings, millwork, and joinery:			
	Establishments (number)	2,600	2,600	2,500
	Employees (thousands)	91	89	81
	Capacity utilization (percent)	80	75	77
	U.S. shipments (million dollars)	8,960	8,700	8,600
	U.S. exports (million dollars)	248	327	366
	U.S. imports (million dollars)	602	579	531
	Apparent U.S. consumption (million dollars)	13,540	12,520	12,520
	Trade balance (million dollars)	(354)	(252)	(165)
	Ratio of imports to apparent consumption (percent)	4.4	4.6	4.2
	Ratio of exports to shipments (percent)	2.8	3.8	4.3
AG049	Structural panel products:			
	Establishments (number)	600	600	600
	Employees (thousands)	80	78	70
	Capacity utilization (percent)	85	80	80
	U.S. production (million dollars)	10,700	10,600	10,400
	U.S. exports (million dollars)	643	770	748
	U.S. imports (million dollars)	1,011	993	858
	Apparent U.S. consumption (million dollars)	11,068	10,823	10,510
	Trade balance (million dollars)	(368)	(223)	(110)
	Ratio of imports to apparent consumption (percent)	9.1	9.2	8.2
	Ratio of exports to production (percent)	6.0	7.3	7.2
AG050	Wooden containers:			
	Establishments (number)	2,600	2,600	2,600
	Employees (thousands)	29	29	29
	Capacity utilization (percent)	80	75	77
	U.S. production (million dollars)	1,800	1,900	1,950
	U.S. exports (million dollars)	52	70	76
	U.S. imports (million dollars)	152	149	142
	Apparent U.S. consumption (million dollars)	1,900	1,979	2,016
	Trade balance (million dollars)	(100)	(79)	(66)
	Ratio of imports to apparent consumption (percent)	8.0	7.5	7.0
	Ratio of exports to production (percent)	2.9	3.7	3.9

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
AG051	Tools and tool handles of wood:			
	Establishments (number)	138	136	135
	Employees (thousands)	3	3	3
	Capacity utilization (percent)	75	70	73
	U.S. shipments (million dollars)	155	150	155
	U.S. exports (million dollars)	11	13	14
	U.S. imports (million dollars)	77	75	76
	Apparent U.S. consumption (million dollars)	221	212	217
	Trade balance (million dollars)	(66)	(62)	(62)
	Ratio of imports to apparent consumption (percent)	34.8	35.4	35.0
	Ratio of exports to shipments (percent)	7.1	8.7	9.0
AG052	Miscellaneous articles of wood:			
	Establishments (number)	680	680	680
	Employees (thousands)	32	30	30
	Capacity utilization (percent)	75	70	73
	U.S. shipments (million dollars)	2,400	2,400	2,500
	U.S. exports (million dollars)	123	155	156
	U.S. imports (million dollars)	367	378	394
	Apparent U.S. consumption (million dollars)	2,644	2,623	2,738
	Trade balance (million dollars)	(244)	(223)	(238)
	Ratio of imports to apparent consumption (percent)	13.9	14.4	14.4
	Ratio of exports to shipments (percent)	5.1	6.5	6.2
AG053	Cork and rattan:			
	Establishments (number)	35	30	31
	Employees (thousands)	2	2	2
	Capacity utilization (percent)	75	70	73
	U.S. shipments (million dollars)	60	60	62
	U.S. exports (million dollars)	25	38	35
	U.S. imports (million dollars)	322	318	306
	Apparent U.S. consumption (million dollars)	357	340	333
	Trade balance (million dollars)	(297)	(280)	(271)
	Ratio of imports to apparent consumption (percent)	90.2	93.5	91.9
	Ratio of exports to shipments (percent)	41.7	63.3	56.5
AG054	Pulp and wastepaper:			
	Establishments (number)	27	26	25
	Employees (thousands)	15	15	14
	Capacity utilization (percent)	95	94	1/
	U.S. shipments (million dollars)	10,700	10,000	8,800
	U.S. exports (million dollars)	4,362	4,056	3,616
	U.S. imports (million dollars)	3,084	2,886	2,176
	Apparent U.S. consumption (million dollars)	9,422	8,830	7,360
	Trade balance (million dollars)	1,278	1,170	1,440
	Ratio of imports to apparent consumption (percent)	32.7	32.7	29.6
	Ratio of exports to shipments (percent)	40.8	40.6	41.1
AG055	Paper boxes and bags:			
	Establishments (number)	2,600	2,600	2,600
	Employees (thousands)	170	171	170
	Capacity utilization (percent)	95	90	1/
	U.S. shipments (million dollars)	32,200	31,600	31,200
	U.S. exports (million dollars)	372	473	547
	U.S. imports (million dollars)	192	225	246
	Apparent U.S. consumption (million dollars)	32,020	31,352	30,899
	Trade balance (million dollars)	180	248	301
	Ratio of imports to apparent consumption (percent)	0.6	0.7	0.8
	Ratio of exports to shipments (percent)	1.2	1.5	1.8

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
AG056	Industrial papers and paperboards:			
	Establishments (number)	700	700	700
	Employees (thousands)	120	120	120
	Capacity utilization (percent)	95	90	1/
	U.S. shipments (million dollars)	43,000	44,000	42,000
	U.S. exports (million dollars)	2,419	2,817	3,314
	U.S. imports (million dollars)	1,077	987	936
	Apparent U.S. consumption (million dollars)	41,658	42,170	39,622
	Trade balance (million dollars)	1,342	1,830	2,378
	Ratio of imports to apparent consumption (percent)	2.6	2.3	2.4
	Ratio of exports to shipments (percent)	5.6	6.4	7.9
AG057	Newsprint:			
	Establishments (number)	20	18	18
	Employees (thousands)	9	9	9
	Capacity utilization (percent)	96	92	90
	U.S. shipments (million dollars)	4,000	4,500	4,600
	U.S. exports (million dollars)	357	293	388
	U.S. imports (million dollars)	4,487	4,247	3,979
	Apparent U.S. consumption (million dollars)	8,130	8,454	8,191
	Trade balance (million dollars)	(4,130)	(3,954)	(3,591)
	Ratio of imports to apparent consumption (percent)	55.2	50.2	48.6
	Ratio of exports to shipments (percent)	8.9	6.5	8.4
AG058	Printing and writing papers:			
	Establishments (number)	130	132	132
	Employees (thousands)	134	134	134
	Capacity utilization (percent)	93	93	92
	U.S. shipments (million dollars)	19,750	20,250	19,250
	U.S. exports (million dollars)	474	688	871
	U.S. imports (million dollars)	2,082	2,283	2,100
	Apparent U.S. consumption (million dollars)	21,358	21,845	20,479
	Trade balance (million dollars)	(1,608)	(1,595)	(1,229)
	Ratio of imports to apparent consumption (percent)	9.7	10.5	10.3
	Ratio of exports to shipments (percent)	2.4	3.4	4.5
AG059	Certain specialty papers:			
	Establishments (number)	350	1/	1/
	Employees (thousands)	41	41	39
	Capacity utilization (percent)	93	91	90
	U.S. shipments (million dollars)	4,825	4,800	4,700
	U.S. exports (million dollars)	217	334	376
	U.S. imports (million dollars)	419	450	433
	Apparent U.S. consumption (million dollars)	5,027	4,916	4,757
	Trade balance (million dollars)	(202)	(116)	(57)
	Ratio of imports to apparent consumption (percent)	8.3	9.2	9.1
	Ratio of exports to shipments (percent)	4.5	7.0	8.0
AG060	Miscellaneous paper products:			
	Establishments (number)	2,600	1/	1/
	Employees (thousands)	190	192	192
	Capacity utilization (percent)	92	91	90
	U.S. shipments (million dollars)	20,500	20,850	20,000
	U.S. exports (million dollars)	444	479	577
	U.S. imports (million dollars)	337	365	376
	Apparent U.S. consumption (million dollars)	20,393	20,736	19,799
	Trade balance (million dollars)	107	114	201
	Ratio of imports to apparent consumption (percent)	1.7	1.8	1.9
	Ratio of exports to shipments (percent)	2.2	2.3	2.9

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
AG061	Printed matter:			
	Establishments (number)	53,000	60,000	60,000
	Employees (thousands)	1,400	1,500	1,500
	Capacity utilization (percent)	2/	2/	2/
	U.S. shipments (million dollars)	150,000	157,000	161,000
	U.S. exports (million dollars)	2,569	3,072	3,470
	U.S. imports (million dollars)	1,566	1,616	1,649
	Apparent U.S. consumption (million dollars)	148,997	155,544	159,179
	Trade balance (million dollars)	1,003	1,456	1,821
	Ratio of imports to apparent consumption (percent)	1.1	1.0	1.0
	Ratio of exports to shipments (percent)	1.7	2.0	2.2

1/ Not available.
2/ Capacity utilization is not meaningful in this industry.
3/ Less than $0.5 million.
4/ Does not reflect changes in inventory.
5/ Does not include gums and resins. Production data for gums and resins is no longer reported.

Table B-2
Fibers, textiles, and apparel sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
	Textiles and apparel:			
TX001	Textile fibers and waste: 1/			
	Establishments (number)	2,815 1/	3,042 1/	3,245 1/
	Employees (thousands)	47	48	48
	Capacity utilization (percent)	87 2/	84 2/	79 2/
	U.S. shipments (million dollars)	8,850	10,267	10,108
	U.S. exports (million dollars)	3,091	3,641	3,398
	U.S. imports (million dollars)	634	597	592
	Apparent U.S. consumption (million dollars)	6,393	7,223	7,302
	Trade balance (million dollars)	2,457	3,044	2,806
	Ratio of imports to apparent consumption (percent)	9.9	8.3	8.1
	Ratio of exports to shipments (percent)	34.9	35.5	33.6
TX002	Spun yarns:			
	Establishments (number)	426	424	424
	Employees (thousands)	75	72	67
	Capacity utilization (percent)	86	88	91
	U.S. shipments (million dollars)	7,956	8,200	8,750
	U.S. exports (million dollars)	242	306	348
	U.S. imports (million dollars)	309	248	281
	Apparent U.S. consumption (million dollars)	8,023	8,142	8,683
	Trade balance (million dollars)	(67)	58	67
	Ratio of imports to apparent consumption (percent)	3.9	3.0	3.2
	Ratio of exports to shipments (percent)	3.0	3.7	4.0
TX003	Filament yarns:			
	Establishments (number)	180	184	184
	Employees (thousands)	56	55	54
	Capacity utilization (percent)	91	87	90
	U.S. shipments (million dollars)	8,283	8,300	8,400
	U.S. exports (million dollars)	647	776	751
	U.S. imports (million dollars)	332	335	420
	Apparent U.S. consumption (million dollars)	7,968	7,859	8,069
	Trade balance (million dollars)	315	441	331
	Ratio of imports to apparent consumption (percent)	4.2	4.3	5.2
	Ratio of exports to shipments (percent)	7.8	9.3	8.9
TX004	Miscellaneous yarns:			
	Establishments (number) 2/	61	63	65
	Employees (thousands) 2/	7	7	6
	Capacity utilization (percent) 2/	88	88	89
	U.S. shipments (million dollars)	837	890	940
	U.S. exports (million dollars)	77	107	107
	U.S. imports (million dollars)	42	48	65
	Apparent U.S. consumption (million dollars)	802	831	898
	Trade balance (million dollars)	35	59	42
	Ratio of imports to apparent consumption (percent)	5.2	5.8	7.2
	Ratio of exports to shipments (percent)	9.2	12.0	11.4
TX005	Broadwoven fabrics:			
	Establishments (number)	1,082	1,065	1,044
	Employees (thousands)	195	185	174
	Capacity utilization (percent)	87	82	83
	U.S. shipments (million dollars)	12,963	12,807	12,564
	U.S. exports (million dollars)	991	1,233	1,321
	U.S. imports (million dollars)	2,608	2,657	2,950
	Apparent U.S. consumption (million dollars)	14,580	14,231	14,193
	Trade balance (million dollars)	(1,617)	(1,424)	(1,629)
	Ratio of imports to apparent consumption (percent)	17.9	18.7	20.8
	Ratio of exports to shipments (percent)	7.6	9.6	10.5

See footnotes at end of table.

Table B-2--Continued
Fibers, textiles, and apparel sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
TX006	Knit fabrics:			
	Establishments (number)	525	521	3/
	Employees (thousands)	43	45	3/
	Capacity utilization (percent)	75	72	3/
	U.S. shipments (million dollars)	5,700	5,675	3/
	U.S. exports (million dollars)	121	218	287
	U.S. imports (million dollars)	117	144	183
	Apparent U.S. consumption (million dollars)	5,696	5,601	3/
	Trade balance (million dollars)	4	74	104
	Ratio of imports to apparent consumption (percent)	2.1	2.6	3/
	Ratio of exports to shipments (percent)	2.1	3.8	3/
TX007	Miscellaneous fabrics:			
	Establishments (number) 4/	549	581	3/
	Employees (thousands) 4/	29	28	28
	Capacity utilization (percent) 4/	76	77	3/
	U.S. shipments (million dollars) 4/	1,341	1,418	3/
	U.S. exports (million dollars)	118	150	174
	U.S. imports (million dollars)	91	90	86
	Apparent U.S. consumption (million dollars)	1,314	1,358	3/
	Trade balance (million dollars)	27	60	88
	Ratio of imports to apparent consumption (percent)	6.9	6.6	3/
	Ratio of exports to shipments (percent)	8.8	10.6	3/
TX008	Coated, covered, impregnated or laminated textile fabrics:			
	Establishments (number)	245	254	260
	Employees (thousands)	12	12	12
	Capacity utilization (percent)	70	70	70
	U.S. shipments (million dollars)	1,946	20,432	2,200
	U.S. exports (million dollars)	239	287	313
	U.S. imports (million dollars)	172	185	189
	Apparent U.S. consumption (million dollars)	1,879	20,330	2,076
	Trade balance (million dollars)	67	102	124
	Ratio of imports to apparent consumption (percent)	9.2	0.9	9.1
	Ratio of exports to shipments (percent)	12.3	1.4	14.2
TX009	Cordage, nets, and netting:			
	Establishments (number)	205	214	215
	Employees (thousands)	8	8	8
	Capacity utilization (percent)	70	70	70
	U.S. shipments (million dollars)	591	600	625
	U.S. exports (million dollars)	32	44	48
	U.S. imports (million dollars)	127	137	127
	Apparent U.S. consumption (million dollars)	686	693	704
	Trade balance (million dollars)	(95)	(93)	(79)
	Ratio of imports to apparent consumption (percent)	18.5	19.8	18.0
	Ratio of exports to shipments (percent)	5.4	7.3	7.7
TX010	Certain textile articles and fabrics suitable for industrial use:			
	Establishments (number)	68	74	75
	Employees (thousands)	15	14	15
	Capacity utilization (percent)	85	85	85
	U.S. shipments (million dollars)	3,102	3,250	3,300
	U.S. exports (million dollars)	153	184	211
	U.S. imports (million dollars)	112	135	142
	Apparent U.S. consumption (million dollars)	3,061	3,201	3,231
	Trade balance (million dollars)	41	49	69
	Ratio of imports to apparent consumption (percent)	3.7	4.2	4.4
	Ratio of exports to shipments (percent)	4.9	5.7	6.4

See footnotes at end of table.

Table B-2--Continued
Fibers, textiles, and apparel sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
TX011	Miscellaneous textiles and articles:			
	Establishments (number)	3,685	3,761	3,800
	Employees (thousands)	83	82	83
	Capacity utilization (percent)	85	85	85
	U.S. shipments (million dollars)	5,653	6,501	7,000
	U.S. exports (million dollars)	463	526	600
	U.S. imports (million dollars)	527	702	794
	Apparent U.S. consumption (million dollars)	5,717	6,677	7,194
	Trade balance (million dollars)	(64)	(176)	(194)
	Ratio of imports to apparent consumption (percent)	9.2	10.5	11.0
	Ratio of exports to shipments (percent)	8.2	8.1	8.6
TX012	Sacks and bags of textile materials:			
	Establishments (number)	122	140	140
	Employees (thousands)	5	5	5
	Capacity utilization (percent)	75	75	75
	U.S. shipments (million dollars)	281	300	320
	U.S. exports (million dollars)	12	15	16
	U.S. imports (million dollars)	30	41	52
	Apparent U.S. consumption (million dollars)	299	326	356
	Trade balance (million dollars)	(18)	(26)	(36)
	Ratio of imports to apparent consumption (percent)	10.0	12.6	14.6
	Ratio of exports to shipments (percent)	4.3	5.0	5.0
TX013	Carpets and rugs:			
	Establishments (number)	580	596	566
	Employees (thousands)	55	54	51
	Capacity utilization (percent)	81	81	78
	U.S. shipments (million dollars)	9,826	9,987	9,319
	U.S. exports (million dollars)	383	551	704
	U.S. imports (million dollars)	613	598	591
	Apparent U.S. consumption (million dollars)	10,056	10,034	9,206
	Trade balance (million dollars)	(230)	(47)	113
	Ratio of imports to apparent consumption (percent)	6.1	6.0	6.4
	Ratio of exports to shipments (percent)	3.9	5.5	7.6
TX014	Home furnishings:			
	Establishments (number)	2,045	2,123	2,080
	Employees (thousands)	87	87	85
	Capacity utilization (percent)	85	80	78
	U.S. shipments (million dollars)	7,200	7,000	6,800
	U.S. exports (million dollars)	146	196	256
	U.S. imports (million dollars)	738	751	726
	Apparent U.S. consumption (million dollars)	7,792	7,555	7,270
	Trade balance (million dollars)	(592)	(555)	(470)
	Ratio of imports to apparent consumption (percent)	9.5	9.9	10.0
	Ratio of exports to shipments (percent)	2.0	2.8	3.8
TX015	Men's and boys' suits and sport coats:			
	Establishments (number)	370	348	N/A
	Employees (thousands)	55	50	49
	Capacity utilization (percent)	79	75	N/A
	U.S. shipments (million dollars)	2,798	2,744	2,749
	U.S. exports (million dollars)	54	84	98
	U.S. imports (million dollars)	576	508	561
	Apparent U.S. consumption (million dollars)	3,320	3,168	3,212
	Trade balance (million dollars)	(522)	(424)	(463)
	Ratio of imports to apparent consumption (percent)	17.3	16.0	17.5
	Ratio of exports to shipments (percent)	1.9	3.1	3.6

See footnotes at end of table.

Table B-2--Continued
Fibers, textiles, and apparel sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
TX016	Men's and boys' coats and jackets:			
	Establishments (number)	377	387	3/
	Employees (thousands)	26	26	26
	Capacity utilization (percent)	86	82	3/
	U.S. shipments (million dollars)	1,201	1,163	1,165
	U.S. exports (million dollars)	36	50	69
	U.S. imports (million dollars)	925	1,068	1,039
	Apparent U.S. consumption (million dollars)	2,090	2,181	2,135
	Trade balance (million dollars)	(889)	(1,018)	(970)
	Ratio of imports to apparent consumption (percent)	44.3	49.0	48.7
	Ratio of exports to shipments (percent)	3.0	4.3	5.9
TX017	Men's and boys' trousers:			
	Establishments (number)	1,167	1,203	3/
	Employees (thousands)	154	146	147
	Capacity utilization (percent)	86	82	3/
	U.S. shipments (million dollars)	8,510	8,170	8,186
	U.S. exports (million dollars)	419	519	653
	U.S. imports (million dollars)	1,966	2,152	2,315
	Apparent U.S. consumption (million dollars)	10,057	9,803	9,848
	Trade balance (million dollars)	(1,547)	(1,633)	(1,662)
	Ratio of imports to apparent consumption (percent)	19.5	22.0	23.5
	Ratio of exports to shipments (percent)	4.9	6.4	8.0
TX018	Women's and girls' trousers:			
	Establishments (number)	3,000	3,260	3,270
	Employees (thousands)	123	110	111
	Capacity utilization (percent)	83	79	79
	U.S. shipments (million dollars)	3,042	3,664	4,155
	U.S. exports (million dollars)	133	141	209
	U.S. imports (million dollars)	2,510	2,693	2,780
	Apparent U.S. consumption (million dollars)	5,419	6,216	6,726
	Trade balance (million dollars)	(2,377)	(2,552)	(2,571)
	Ratio of imports to apparent consumption (percent)	46.3	43.3	41.3
	Ratio of exports to shipments (percent)	4.4	3.8	5.0
TX019	Shirts and blouses:			
	Establishments (number)	2,095	2,085	2,002
	Employees (thousands)	145	135	132
	Capacity utilization (percent)	87	89	88
	U.S. shipments (million dollars)	8,785	9,143	8,530
	U.S. exports (million dollars)	298	361	454
	U.S. imports (million dollars)	6,789	7,147	7,401
	Apparent U.S. consumption (million dollars)	15,276	15,929	15,477
	Trade balance (million dollars)	(6,491)	(6,786)	(6,947)
	Ratio of imports to apparent consumption (percent)	44.4	44.9	47.8
	Ratio of exports to shipments (percent)	3.4	3.9	5.3
TX020	Sweaters:			
	Establishments (number)	415	394	356
	Employees (thousands)	23	22	20
	Capacity utilization (percent)	73	68	60
	U.S. shipments (million dollars)	1,019	753	571
	U.S. exports (million dollars)	15	18	31
	U.S. imports (million dollars)	2,677	2,116	1,917
	Apparent U.S. consumption (million dollars)	3,681	2,851	2,457
	Trade balance (million dollars)	(2,662)	(2,098)	(1,886)
	Ratio of imports to apparent consumption (percent)	72.7	74.2	78.0
	Ratio of exports to shipments (percent)	1.5	2.4	5.4

See footnotes at end of table.

Table B-2--Continued
Fibers, textiles, and apparel sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
TX021	Women's and girls' suits, skirts, and coats:			
	Establishments (number)	1,423	1,438	1,424
	Employees (thousands)	56	55	55
	Capacity utilization (percent)	60	56	3/
	U.S. shipments (million dollars)	3,324	3,292	3,259
	U.S. exports (million dollars)	124	175	204
	U.S. imports (million dollars)	2,256	2,617	2,714
	Apparent U.S. consumption (million dollars)	5,456	5,734	5,769
	Trade balance (million dollars)	(2,132)	(2,442)	(2,510)
	Ratio of imports to apparent consumption (percent)	41.3	45.6	47.0
	Ratio of exports to shipments (percent)	3.7	5.3	6.3
TX022	Women's and girls' dresses:			
	Establishments (number)	2,801	2,592	2,514
	Employees (thousands)	86	66	64
	Capacity utilization (percent)	71	66	64
	U.S. shipments (million dollars)	4,384	4,734	4,743
	U.S. exports (million dollars)	42	51	65
	U.S. imports (million dollars)	882	965	938
	Apparent U.S. consumption (million dollars)	5,224	5,648	5,616
	Trade balance (million dollars)	(840)	(914)	(873)
	Ratio of imports to apparent consumption (percent)	16.9	17.1	16.7
	Ratio of exports to shipments (percent)	1.0	1.1	1.4
TX023	Robes, nightwear, and underwear: 5/			
	Establishments (number)	817	811	3/
	Employees (thousands)	115	111	110
	Capacity utilization (percent)	96	91	3/
	U.S. shipments (million dollars)	4,664	4,337	4,345
	U.S. exports (million dollars)	149	197	302
	U.S. imports (million dollars)	979	1,146	1,293
	Apparent U.S. consumption (million dollars)	5,494	5,286	5,336
	Trade balance (million dollars)	(830)	(949)	(991)
	Ratio of imports to apparent consumption (percent)	17.8	21.7	24.2
	Ratio of exports to shipments (percent)	3.2	4.5	7.0
TX024	Hosiery:			
	Establishments (number)	657	666	3/
	Employees (thousands)	73	71	70
	Capacity utilization (percent)	86	81	3/
	U.S. shipments (million dollars)	3,629	3,593	3,557
	U.S. exports (million dollars)	59	73	98
	U.S. imports (million dollars)	148	186	314
	Apparent U.S. consumption (million dollars)	3,718	3,706	3,773
	Trade balance (million dollars)	(89)	(113)	(216)
	Ratio of imports to apparent consumption (percent)	4.0	5.0	8.3
	Ratio of exports to shipments (percent)	1.6	2.0	2.8
TX025	Body-supporting garments:			
	Establishments (number)	124	113	3/
	Employees (thousands)	14	12	11
	Capacity utilization (percent)	86	82	3/
	U.S. shipments (million dollars)	1,064	994	996
	U.S. exports (million dollars)	176	182	231
	U.S. imports (million dollars)	338	366	444
	Apparent U.S. consumption (million dollars)	1,226	1,178	1,209
	Trade balance (million dollars)	(162)	(184)	(213)
	Ratio of imports to apparent consumption (percent)	27.6	31.1	36.7
	Ratio of exports to shipments (percent)	16.5	18.3	23.2

See footnotes at end of table.

Table B-2--Continued
Fibers, textiles, and apparel sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
TX026	Neckwear: 6/			
	Establishments (number)	165	162	3/
	Employees (thousands)	8	7	7
	Capacity utilization (percent)	98	93	3/
	U.S. shipments (million dollars)	534	572	573
	U.S. exports (million dollars)	16	17	20
	U.S. imports (million dollars)	423	296	283
	Apparent U.S. consumption (million dollars)	941	851	836
	Trade balance (million dollars)	(407)	(279)	(263)
	Ratio of imports to apparent consumption (percent)	45.0	34.8	33.9
	Ratio of exports to shipments (percent)	3.0	3.0	3.5
TX027	Gloves, including gloves for sports:			
	Establishments (number)	220	215	210
	Employees (thousands)	12	12	11
	Capacity utilization (percent)	78	75	70
	U.S. shipments (million dollars)	914	864	860
	U.S. exports (million dollars)	182	158	165
	U.S. imports (million dollars)	890	871	912
	Apparent U.S. consumption (million dollars)	1,622	1,577	1,607
	Trade balance (million dollars)	(708)	(713)	(747)
	Ratio of imports to apparent consumption (percent)	54.9	55.2	56.8
	Ratio of exports to shipments (percent)	19.9	18.3	19.2
TX028	Headwear:			
	Establishments (number)	316	312	310
	Employees (thousands)	15	16	16
	Capacity utilization (percent)	65	75	75
	U.S. shipments (million dollars)	750	775	800
	U.S. exports (million dollars)	43	64	89
	U.S. imports (million dollars)	341	429	495
	Apparent U.S. consumption (million dollars)	1,048	1,140	1,206
	Trade balance (million dollars)	(298)	(365)	(406)
	Ratio of imports to apparent consumption (percent)	32.5	37.6	41.0
	Ratio of exports to shipments (percent)	5.7	8.3	11.1
TX029	Leather apparel and accessories:			
	Establishments (number)	492	490	480
	Employees (thousands)	15	13	13
	Capacity utilization (percent)	75	70	70
	U.S. shipments (million dollars)	455	427	400
	U.S. exports (million dollars)	63	75	96
	U.S. imports (million dollars)	1,310	1,354	1,226
	Apparent U.S. consumption (million dollars)	1,702	1,706	1,530
	Trade balance (million dollars)	(1,247)	(1,279)	(1,130)
	Ratio of imports to apparent consumption (percent)	77.0	79.4	80.1
	Ratio of exports to shipments (percent)	13.8	17.6	24.0
TX030	Fur apparel and other fur articles:			
	Establishments (number)	394	394	345
	Employees (thousands)	2	2	1
	Capacity utilization (percent)	68	65	60
	U.S. shipments (million dollars)	382	305	245
	U.S. exports (million dollars)	67	54	61
	U.S. imports (million dollars)	370	249	172
	Apparent U.S. consumption (million dollars)	685	500	356
	Trade balance (million dollars)	(303)	(195)	(111)
	Ratio of imports to apparent consumption (percent)	54.0	49.8	48.3
	Ratio of exports to shipments (percent)	17.5	17.7	24.9

See footnotes at end of table.

Table B-2--Continued
Fibers, textiles, and apparel sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
TX031	Rubber, plastics, and coated-fabric apparel:			
	Establishments (number)	67	67	65
	Employees (thousands)	3	3	3
	Capacity utilization (percent)	65	65	63
	U.S. shipments (million dollars)	159	149	145
	U.S. exports (million dollars)	46	50	90
	U.S. imports (million dollars)	160	119	121
	Apparent U.S. consumption (million dollars)	273	218	176
	Trade balance (million dollars)	(114)	(69)	(31)
	Ratio of imports to apparent consumption (percent)	58.6	54.6	68.8
	Ratio of exports to shipments (percent)	28.9	33.6	62.1
TX032	Nonwoven and related products:			
	Establishments (number)	77	78	80
	Employees (thousands)	9	9	9
	Capacity utilization (percent)	77	82	86
	U.S. shipments (million dollars)	3,213	3,405	3,610
	U.S. exports (million dollars)	252	370	381
	U.S. imports (million dollars)	191	315	366
	Apparent U.S. consumption (million dollars)	3,152	3,350	3,595
	Trade balance (million dollars)	61	55	15
	Ratio of imports to apparent consumption (percent)	6.1	9.4	10.2
	Ratio of exports to shipments (percent)	7.8	10.9	10.6
TX033	Other wearing apparel:			
	Establishments (number)	3/	3/	3/
	Employees (thousands)	3/	3/	3/
	Capacity utilization (percent)	3/	3/	3/
	U.S. shipments (million dollars)	3/	3/	3/
	U.S. exports (million dollars)	165	204	276
	U.S. imports (million dollars)	952	1,084	1,142
	Apparent U.S. consumption (million dollars)	3/	3/	3/
	Trade balance (million dollars)	(787)	(880)	(866)
	Ratio of imports to apparent consumption (percent)	3/	3/	3/
	Ratio of exports to shipments (percent)	3/	3/	3/

1/ Includes both agricultural and manufacturing establishments. Cotton and wool producing establishments account for over 95 percent of the total.
2/ Capacity utilization figures apply only to manmade fiber producers.
3/ Not available.
4/ The data include only the narrow fabrics and lace and netting industries. These industries account for the vast majority of this grouping.
5/ Data include dressing gowns.
6/ Includes ties, mufflers, scarves, shawls, and veils.

Table B-3
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
	Energy and chemicals:			
CH001	Electrical energy:			
	Establishments (number)	3,225	3,225	3,225
	Employees (thousands)	1/	1/	1/
	Capacity utilization (percent)	100	100	100
	U.S. shipments (million dollars)	212,451	167,403	145,800
	U.S. exports (million dollars)	180	491	54
	U.S. imports (million dollars)	558	463	487
	Apparent U.S. consumption (million dollars)	212,829	167,375	146,233
	Trade balance (million dollars)	(378)	28	(433)
	Ratio of imports to apparent consumption (percent)	0.3	0.3	0.3
	Ratio of exports to shipments (percent)	0.1	0.3	0.0
CH002	Nuclear materials:			
	Establishments (number)	45	43	40
	Employees (thousands)	32	32	30
	Capacity utilization (percent)	60	60	58
	U.S. shipments (million dollars)	4,200	4,000	3,800
	U.S. exports (million dollars)	1,308	1,068	1,120
	U.S. imports (million dollars)	945	1,015	1,092
	Apparent U.S. consumption (million dollars)	3,837	3,947	3,772
	Trade balance (million dollars)	363	53	28
	Ratio of imports to apparent consumption (percent)	24.6	25.7	29.0
	Ratio of exports to shipments (percent)	31.1	26.7	29.5
CH003	Coal and other carbonaceous materials:			
	Establishments (number)	500	500	500
	Employees (thousands)	135	135	129
	Capacity utilization (percent)	85	85	85
	U.S. production (million dollars)	22,297	22,606	22,606
	U.S. exports (million dollars)	4,395	4,608	4,721
	U.S. imports (million dollars)	415	288	309
	Apparent U.S. consumption (million dollars)	18,317	18,286	18,194
	Trade balance (million dollars)	3,980	4,320	4,412
	Ratio of imports to apparent consumption (percent)	2.3	1.6	1.7
	Ratio of exports to production (percent)	19.7	20.4	20.9
CH004	Coal chemicals:			
	Establishments (number)	26	25	25
	Employees (thousands)	1/	1/	1/
	Capacity utilization (percent)	80	80	80
	U.S. production (million dollars)	84	84	86
	U.S. exports (million dollars)	412	396	268
	U.S. imports (million dollars)	264	296	144
	Apparent U.S. consumption (million dollars)	(64)	(16)	(38)
	Trade balance (million dollars)	148	100	124
	Ratio of imports to apparent consumption (percent)	(412.5)	(1,850.0)	(378.9)
	Ratio of exports to production (percent)	490.5	471.4	311.6
CH005	Crude petroleum:			
	Establishments (number)	18,000	18,000	18,000
	Employees (thousands)	204	204	204
	Capacity utilization (percent)	100	100	100
	U.S. production (million dollars)	44,031	46,904	45,800
	U.S. exports (million dollars)	62	183	35
	U.S. imports (million dollars)	35,041	43,833	37,374
	Apparent U.S. consumption (million dollars)	79,010	90,554	83,139
	Trade balance (million dollars)	(34,979)	(43,650)	(37,339)
	Ratio of imports to apparent consumption (percent)	44.4	48.4	45.0
	Ratio of exports to production (percent)	0.1	0.4	0.1

See footnotes at end of table.

Table B-3--Continued
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
CH006	Petroleum products:			
	Establishments (number)	193	194	190
	Employees (thousands)	75	75	75
	Capacity utilization (percent)	85	85	85
	U.S. shipments (million dollars)	147,138	150,628	129,291
	U.S. exports (million dollars)	5,587	7,302	7,461
	U.S. imports (million dollars)	13,161	16,138	12,578
	Apparent U.S. consumption (million dollars)	154,712	159,464	134,408
	Trade balance (million dollars)	(7,574)	(8,836)	(5,117)
	Ratio of imports to apparent consumption (percent)	8.5	10.1	9.4
	Ratio of exports to shipments (percent)	3.8	4.8	5.8
CH007	Natural gas and compo nts:			
	Establishments (number)	1/	1/	1/
	Employees (thousands)	200	200	200
	Capacity utilization (percent)	80	80	80
	U.S. shipments (million dollars)	65,000	73,000	75,000
	U.S. exports (million dollars)	472	493	700
	U.S. imports (million dollars)	2,412	3,229	3,358
	Apparent U.S. consumption (million dollars)	66,940	75,736	77,658
	Trade balance (million dollars)	(1,940)	(2,736)	(2,658)
	Ratio of imports to apparent consumption (percent)	3.6	4.3	4.3
	Ratio of exports to shipments (percent)	0.7	0.7	0.9
CH008	Major primary olefins:			
	Firms (number)	38	37	37
	Employees (thousands)	5	5	5
	Capacity utilization (percent)	97	95	93
	U.S. production (million dollars)	13,200	13,300	13,800
	U.S. exports (million dollars)	157	209	222
	U.S. imports (million dollars)	250	265	188
	Apparent U.S. consumption (million dollars)	13,293	13,356	13,766
	Trade balance (million dollars)	(93)	(56)	34
	Ratio of imports to apparent consumption (percent)	1.9	2.0	1.4
	Ratio of exports to production (percent)	1.2	1.6	1.6
CH009	Other olefins:			
	Firms (number)	24	23	23
	Employees (thousands)	1	1	1
	Capacity utilization (percent)	90	85	85
	U.S. production (million dollars)	925	900	910
	U.S. exports (million dollars)	259	263	285
	U.S. imports (million dollars)	31	14	19
	Apparent U.S. consumption (million dollars)	697	651	644
	Trade balance (million dollars)	228	249	266
	Ratio of imports to apparent consumption (percent)	4.4	2.2	3.0
	Ratio of exports to production (percent)	28.0	29.2	31.3
CH010	Benzene, toluene, and mixed xylenes:			
	Firms (number)	31	31	31
	Employees (thousands)	2	2	2
	Capacity utilization (percent)	60	60	63
	U.S. production (million dollars)	3,400	3,300	3,700
	U.S. exports (million dollars)	182	276	105
	U.S. imports (million dollars)	115	124	196
	Apparent U.S. consumption (million dollars)	3,333	3,148	3,791
	Trade balance (million dollars)	67	152	(91)
	Ratio of imports to apparent consumption (percent)	3.5	3.9	5.2
	Ratio of exports to production (percent)	5.4	8.4	2.8

See footnotes at end of table.

Table B-3--Continued
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
CH011	Benzenoid commodity chemicals:			
	Firms (number)	54	54	54
	Employees (thousands)	15	15	15
	Capacity utilization (percent)	89	90	85
	U.S. production (million dollars)	13,345	13,600	14,150
	U.S. exports (million dollars)	1,685	1,507	1,381
	U.S. imports (million dollars)	430	485	357
	Apparent U.S. consumption (million dollars)	12,090	12,578	13,126
	Trade balance (million dollars)	1,255	1,022	1,024
	Ratio of imports to apparent consumption (percent)	3.6	3.9	2.7
	Ratio of exports to production (percent)	12.6	11.1	9.8
CH012	Benzenoid specialty chemicals:			
	Firms (number)	250	250	250
	Employees (thousands)	95	95	95
	Capacity utilization (percent)	95	95	89
	U.S. production (million dollars)	7,550	7,700	7,930
	U.S. exports (million dollars)	2,841	2,884	3,431
	U.S. imports (million dollars)	1,595	1,811	2,066
	Apparent U.S. consumption (million dollars)	6,304	6,627	6,565
	Trade balance (million dollars)	1,246	1,073	1,365
	Ratio of imports to apparent consumption (percent)	25.3	27.3	31.5
	Ratio of exports to production (percent)	37.6	37.5	43.3
CH013	Miscellaneous organic chemicals:			
	Firms (number)	102	103	100
	Employees (thousands)	86	87	80
	Capacity utilization (percent)	85	83	80
	U.S. shipments (million dollars)	39,312	40,767	39,300
	U.S. exports (million dollars)	4,582	4,303	4,744
	U.S. imports (million dollars)	2,632	2,672	2,862
	Apparent U.S. consumption (million dollars)	37,362	39,136	37,418
	Trade balance (million dollars)	1,950	1,631	1,882
	Ratio of imports to apparent consumption (percent)	7.0	6.8	7.6
	Ratio of exports to shipments (percent)	11.7	10.6	12.1
CH014	Selected inorganic chemicals and elements:			
	Producers (number)	480	480	1/
	Employees (thousands)	73	73	1/
	Capacity utilization (percent)	60	1/	1/
	U.S. shipments (million dollars)	2,737	3,170	2,451
	U.S. exports (million dollars)	859	842	893
	U.S. imports (million dollars)	1,694	1,738	1,573
	Apparent U.S. consumption (million dollars)	3,572	4,066	3,131
	Trade balance (million dollars)	(835)	(896)	(680)
	Ratio of imports to apparent consumption (percent)	47.4	42.7	50.2
	Ratio of exports to shipments (percent)	31.4	26.6	36.4
CH015	Inorganic acids:			
	Establishments (number)	145	145	145
	Employees (thousands)	9	9	9
	Capacity utilization (percent)	80	80	80
	U.S. shipments (million dollars)	2,611	2,379	2,426
	U.S. exports (million dollars)	104	109	129
	U.S. imports (million dollars)	180	179	168
	Apparent U.S. consumption (million dollars)	2,687	2,449	2,465
	Trade balance (million dollars)	(76)	(70)	(39)
	Ratio of imports to apparent consumption (percent)	6.7	7.3	6.8
	Ratio of exports to shipments (percent)	4.0	4.6	5.3

See footnotes at end of table.

Table B-3--Continued
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
CH016	Salts and other inorganic chemicals:			
	Establishments (number)	239	235	230
	Employees (thousands)	36	36	35
	Capacity utilization (percent)	69	67	65
	U.S. shipments (million dollars)	7,003	7,043	7,000
	U.S. exports (million dollars)	1,677	2,098	2,241
	U.S. imports (million dollars)	1,207	1,309	1,341
	Apparent U.S. consumption (million dollars)	6,533	6,254	6,100
	Trade balance (million dollars)	470	789	900
	Ratio of imports to apparent consumption (percent)	18.5	20.9	22.0
	Ratio of exports to shipments (percent)	23.9	29.8	32.0
CH017	Chlor-alkali chemicals:			
	Firms (number)	27	27	1/
	Employees (thousands)	6	6	1/
	Capacity utilization (percent)	94	1/	1/
	U.S. shipments (million dollars)	3,661	4,033	4,707
	U.S. exports (million dollars)	822	800	912
	U.S. imports (million dollars)	191	199	177
	Apparent U.S. consumption (million dollars)	3,030	3,432	3,972
	Trade balance (million dollars)	631	601	735
	Ratio of imports to apparent consumption (percent)	6.3	5.8	4.5
	Ratio of exports to shipments (percent)	22.5	19.8	19.4
CH018	Industrial gases:			
	Firms (number)	103	103	1/
	Employees (thousands)	8	8	1/
	Capacity utilization (percent)	80	1/	1/
	U.S. shipments (million dollars)	2,550	2,649	2,837
	U.S. exports (million dollars)	86	84	95
	U.S. imports (million dollars)	33	36	38
	Apparent U.S. consumption (million dollars)	2,497	2,601	2,780
	Trade balance (million dollars)	53	48	57
	Ratio of imports to apparent consumption (percent)	1.3	1.4	1.4
	Ratio of exports to shipments (percent)	3.4	3.2	3.3
CH019	Fertilizers:			
	Establishments (number)	650	650	650
	Employees (thousands)	41	41	41
	Capacity utilization (percent)	80	80	80
	U.S. shipments (million dollars)	8,252	8,281	8,332
	U.S. exports (million dollars)	2,952	2,697	3,138
	U.S. imports (million dollars)	1,641	1,513	1,536
	Apparent U.S. consumption (million dollars)	6,941	7,097	6,730
	Trade balance (million dollars)	1,311	1,184	1,602
	Ratio of imports to apparent consumption (percent)	23.6	21.3	22.8
	Ratio of exports to shipments (percent)	35.8	32.6	37.7
CH020	Certain inorganic pigments:			
	Firms (number)	80	80	80
	Employees (thousands)	14	14	13
	Capacity utilization (percent)	90	90	80
	U.S. shipments (million dollars)	3,300	3,500	3,360
	U.S. exports (million dollars)	699	725	682
	U.S. imports (million dollars)	577	563	551
	Apparent U.S. consumption (million dollars)	3,178	3,338	3,229
	Trade balance (million dollars)	122	162	131
	Ratio of imports to apparent consumption (percent)	18.2	16.9	17.1
	Ratio of exports to shipments (percent)	21.2	20.7	20.3

See footnotes at end of table.

Table B-3--Continued
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
CH021	Synthetic organic pigments:			
	Firms (number)	32	32	32
	Employees (thousands)	6	6	6
	Capacity utilization (percent)	85	85	85
	U.S. shipments (million dollars)	702	725	1/
	U.S. exports (million dollars)	178	214	200
	U.S. imports (million dollars)	177	208	249
	Apparent U.S. consumption (million dollars)	701	719	1/
	Trade balance (million dollars)	1	6	(49)
	Ratio of imports to apparent consumption (percent)	25.2	28.9	1/
	Ratio of exports to shipments (percent)	25.4	29.5	1/
CH022	Synthetic dyes and couplers:			
	Firms (number)	32	32	32
	Employees (thousands)	8	8	8
	Capacity utilization (percent)	85	85	85
	U.S. shipments (million dollars)	858	870	858
	U.S. exports (million dollars)	134	187	168
	U.S. imports (million dollars)	388	459	497
	Apparent U.S. consumption (million dollars)	1,112	1,142	1,187
	Trade balance (million dollars)	(254)	(272)	(329)
	Ratio of imports to apparent consumption (percent)	34.9	40.2	41.9
	Ratio of exports to shipments (percent)	15.6	21.5	19.6
CH023	Synthetic tanning agents:			
	Firms (number)	5	5	5
	Employees (thousands)	1	1	1
	Capacity utilization (percent)	85	85	85
	U.S. shipments (million dollars)	20	20	20
	U.S. exports (million dollars)	12	11	13
	U.S. imports (million dollars)	3	3	4
	Apparent U.S. consumption (million dollars)	11	12	11
	Trade balance (million dollars)	9	8	9
	Ratio of imports to apparent consumption (percent)	27.3	25.0	36.4
	Ratio of exports to shipments (percent)	60.0	55.0	65.0
CH024	Natural tanning and dyeing materials:			
	Firms (number)	10	10	10
	Employees (thousands)	1	1	1
	Capacity utilization (percent)	85	85	85
	U.S. shipments (million dollars)	10	10	10
	U.S. exports (million dollars)	14	11	12
	U.S. imports (million dollars)	61	51	59
	Apparent U.S. consumption (million dollars)	57	50	57
	Trade balance (million dollars)	(47)	(40)	(47)
	Ratio of imports to apparent consumption (percent)	107.0	102.0	103.5
	Ratio of exports to shipments (percent)	140.0	110.0	120.0
CH025	Photographic chemicals and preparations: 2/			
	Firms (number)	5	5	5
	Employees (thousands)	1	1	1
	Capacity utilization (percent)	85	85	85
	U.S. shipments (million dollars)	1/	1/	1/
	U.S. exports (million dollars)	198	245	287
	U.S. imports (million dollars)	355	370	405
	Apparent U.S. consumption (million dollars)	1/	1/	1/
	Trade balance (million dollars)	(157)	(125)	(118)
	Ratio of imports to apparent consumption (percent)	1/	1/	1/
	Ratio of exports to shipments (percent)	1/	1/	1/

See footnotes at end of table.

Table B-3--Continued
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
CH026	Pesticide products and formulations:			
	Firms (number)	59	59	59
	Employees (thousands)	22	22	22
	Capacity utilization (percent)	85	85	85
	U.S. shipments (million dollars)	5,203	5,205	5,203
	U.S. exports (million dollars)	1,383	1,493	1,427
	U.S. imports (million dollars)	630	626	645
	Apparent U.S. consumption (million dollars)	4,450	4,338	4,421
	Trade balance (million dollars)	753	867	782
	Ratio of imports to apparent consumption (percent)	14.2	14.4	14.6
	Ratio of exports to shipments (percent)	26.6	28.7	27.4
CH027	Adhesives and glues:			
	Establishments (number)	658	663	650
	Employees (thousands)	18	18	18
	Capacity utilization (percent)	86	87	75
	U.S. shipments (million dollars)	4,190	4,500	4,600
	U.S. exports (million dollars)	172	217	229
	U.S. imports (million dollars)	72	89	93
	Apparent U.S. consumption (million dollars)	4,032	4,410	4,464
	Trade balance (million dollars)	100	128	136
	Ratio of imports to apparent consumption (percent)	1.8	2.0	2.1
	Ratio of exports to shipments (percent)	3.4	4.0	5.0
CH028	Medicinal chemicals, except antibiotics:			
	Firms (number)	750	750	750
	Employees (thousands)	165	164	165
	Capacity utilization (percent)	79	80	80
	U.S. shipments (million dollars)	35,400	36,600	40,000
	U.S. exports (million dollars)	3,215	3,870	4,418
	U.S. imports (million dollars)	3,016	3,207	3,919
	Apparent U.S. consumption (million dollars)	35,201	35,937	39,501
	Trade balance (million dollars)	199	663	499
	Ratio of imports to apparent consumption (percent)	8.6	8.9	9.9
	Ratio of exports to shipments (percent)	9.1	10.6	11.0
CH029	Antibiotics:			
	Firms (number)	20	20	20
	Employees (thousands)	123	123	124
	Capacity utilization (percent)	79	80	80
	U.S. shipments (million dollars)	4,300	5,300	5,830
	U.S. exports (million dollars)	1,192	1,262	1,380
	U.S. imports (million dollars)	558	738	986
	Apparent U.S. consumption (million dollars)	3,666	4,776	5,436
	Trade balance (million dollars)	634	524	394
	Ratio of imports to apparent consumption (percent)	15.2	15.5	18.1
	Ratio of exports to shipments (percent)	27.7	23.8	23.7
CH030	Essential oils and other flavoring materials:			
	Establishments (number)	58	58	58
	Employees (thousands)	53	53	51
	Capacity utilization (percent)	75	75	80
	U.S. shipments (million dollars)	2,440	2,880	2,950
	U.S. exports (million dollars)	479	580	615
	U.S. imports (million dollars)	415	476	490
	Apparent U.S. consumption (million dollars)	2,376	2,776	2,825
	Trade balance (million dollars)	64	104	125
	Ratio of imports to apparent consumption (percent)	17.5	17.1	17.3
	Ratio of exports to shipments (percent)	19.6	20.1	20.8

See footnotes at end of table.

Table B-3--Continued
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
CH031	Perfumes, cosmetics, and toiletries:			
	Establishments (number)	648	650	650
	Employees (thousands)	55	56	55
	Capacity utilization (percent)	83	83	80
	U.S. shipments (million dollars)	15,100	15,800	16,700
	U.S. exports (million dollars)	653	852	1,075
	U.S. imports (million dollars)	598	638	716
	Apparent U.S. consumption (million dollars)	15,045	15,586	16,341
	Trade balance (million dollars)	55	214	359
	Ratio of imports to apparent consumption (percent)	4.0	4.1	4.4
	Ratio of exports to shipments (percent)	4.3	5.4	6.4
CH032	Soaps, detergents, and surface-active agents:			
	Establishments (number)	950	950	950
	Employees (thousands)	44	45	46
	Capacity utilization (percent)	83	83	80
	U.S. shipments (million dollars)	12,400	13,400	14,500
	U.S. exports (million dollars)	561	775	936
	U.S. imports (million dollars)	250	321	358
	Apparent U.S. consumption (million dollars)	12,089	12,946	13,922
	Trade balance (million dollars)	311	454	578
	Ratio of imports to apparent consumption (percent)	2.1	2.5	2.6
	Ratio of exports to shipments (percent)	4.5	5.8	6.5
CH033	Fatty chemicals:			
	Establishments (number)	13	13	13
	Employees (thousands)	2	2	2
	Capacity utilization (percent)	85	85	85
	U.S. shipments (million dollars)	380	400	420
	U.S. exports (million dollars)	186	202	258
	U.S. imports (million dollars)	71	74	79
	Apparent U.S. consumption (million dollars)	265	272	241
	Trade balance (million dollars)	115	128	179
	Ratio of imports to apparent consumption (percent)	26.8	27.2	32.8
	Ratio of exports to shipments (percent)	48.9	50.5	61.4
CH034	Miscellaneous chemicals specialties:			
	Establishments (number)	1/	1/	1/
	Employees (thousands)	1/	1/	1/
	Capacity utilization (percent)	1/	1/	1/
	U.S. shipments (million dollars)	1/	1/	1/
	U.S. exports (million dollars)	583	650	749
	U.S. imports (million dollars)	293	340	372
	Apparent U.S. consumption (million dollars)	1/	1/	1/
	Trade balance (million dollars)	290	310	377
	Ratio of imports to apparent consumption (percent)	1/	1/	1/
	Ratio of exports to shipments (percent)	1/	1/	1/
CH035	Paints, inks, and related items:			
	Firms (number)	1,500	1,500	1,500
	Employees (thousands)	43	43	42
	Capacity utilization (percent)	80	80	75
	U.S. shipments (million dollars)	13,200	13,800	14,000
	U.S. exports (million dollars)	548	761	873
	U.S. imports (million dollars)	200	239	277
	Apparent U.S. consumption (million dollars)	12,852	13,278	13,404
	Trade balance (million dollars)	348	522	596
	Ratio of imports to apparent consumption (percent)	1.6	1.8	2.1
	Ratio of exports to shipments (percent)	4.2	5.5	6.2

See footnotes at end of table.

Table B-3--Continued
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
CH036	Explosives and propellant powders:			
	Firms (number)	135	135	135
	Employees (thousands)	15	15	15
	Capacity utilization (percent)	90	90	85
	U.S. shipments (million dollars)	1,300	1,350	1,380
	U.S. exports (million dollars)	164	157	169
	U.S. imports (million dollars)	149	156	178
	Apparent U.S. consumption (million dollars)	1,285	1,349	1,389
	Trade balance (million dollars)	15	1	(9)
	Ratio of imports to apparent consumption (percent)	11.6	11.6	12.8
	Ratio of exports to shipments (percent)	12.6	11.6	12.2
CH037	Polyethylene resins in primary forms:			
	Establishments (number)	28	28	26
	Employees (thousands)	23	23	22
	Capacity utilization (percent)	83	85	83
	U.S. production (million dollars)	8,500	9,340	9,070
	U.S. exports (million dollars)	1,140	1,106	1,460
	U.S. imports (million dollars)	408	528	448
	Apparent U.S. consumption (million dollars)	7,768	8,762	8,058
	Trade balance (million dollars)	732	578	1,012
	Ratio of imports to apparent consumption (percent)	5.3	6.0	5.6
	Ratio of exports to production (percent)	13.4	11.8	16.1
CH038	Polypropylene resins in primary forms:			
	Establishments (number)	18	18	14
	Employees (thousands)	18	18	17
	Capacity utilization (percent)	81	83	81
	U.S. production (million dollars)	3,000	3,875	3,465
	U.S. exports (million dollars)	629	730	788
	U.S. imports (million dollars)	33	38	64
	Apparent U.S. consumption (million dollars)	2,404	3,183	2,741
	Trade balance (million dollars)	596	692	724
	Ratio of imports to apparent consumption (percent)	1.4	1.2	2.3
	Ratio of exports to production (percent)	21.0	18.8	22.7
CH039	PVC resins in primary forms:			
	Establishments (number)	26	26	16
	Employees (thousands)	8	8	7
	Capacity utilization (percent)	94	98	94
	U.S. production (million dollars)	3,800	4,060	4,200
	U.S. exports (million dollars)	388	419	549
	U.S. imports (million dollars)	45	67	54
	Apparent U.S. consumption (million dollars)	3,457	3,708	3,705
	Trade balance (million dollars)	343	352	495
	Ratio of imports to apparent consumption (percent)	1.3	1.8	1.5
	Ratio of exports to shipments (percent)	10.2	10.3	13.1
CH040	Styrene polymers in primary forms:			
	Establishments (number)	63	63	56
	Employees (thousands)	14	15	14
	Capacity utilization (percent)	85	85	85
	U.S. production (million dollars)	4,477	4,760	4,624
	U.S. exports (million dollars)	457	516	550
	U.S. imports (million dollars)	117	138	132
	Apparent U.S. consumption (million dollars)	4,137	4,382	4,206
	Trade balance (million dollars)	340	378	418
	Ratio of imports to apparent consumption (percent)	2.8	3.1	3.1
	Ratio of exports to production (percent)	10.2	10.8	11.9

See footnotes at end of table.

Table B-3--Continued
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
CH041	PET and other polyester resins:			
	Establishments (number)	26	25	20
	Employees (thousands)	5	5	7
	Capacity utilization (percent)	90	90	89
	U.S. production (million dollars)	2,403	2,667	2,100
	U.S. exports (million dollars)	252	339	408
	U.S. imports (million dollars)	51	66	69
	Apparent U.S. consumption (million dollars)	2,202	2,394	1,761
	Trade balance (million dollars)	201	273	339
	Ratio of imports to apparent consumption (percent)	2.3	2.8	3.9
	Ratio of exports to production (percent)	10.5	12.7	19.4
CH042	Other plastics in primary forms:			
	Establishments (number)	280	285	285
	Employees (thousands)	103	101	101
	Capacity utilization (percent)	89	91	89
	U.S. production (million dollars)	20,800	23,200	23,200
	U.S. exports (million dollars)	2,756	3,190	3,664
	U.S. imports (million dollars)	917	1,009	1,046
	Apparent U.S. consumption (million dollars)	18,961	21,019	20,582
	Trade balance (million dollars)	1,839	2,181	2,618
	Ratio of imports to apparent consumption (percent)	4.8	4.8	5.1
	Ratio of exports to production (percent)	13.3	13.8	15.8
CH043	SBR rubber in primary forms:			
	Establishments (number)	12	11	12
	Employees (thousands)	4	4	4
	Capacity utilization (percent)	79	77	77
	U.S. production (million dollars)	642	680	640
	U.S. exports (million dollars)	203	206	219
	U.S. imports (million dollars)	98	94	92
	Apparent U.S. consumption (million dollars)	537	568	513
	Trade balance (million dollars)	105	112	127
	Ratio of imports to apparent consumption (percent)	18.2	16.5	17.9
	Ratio of exports to production (percent)	31.6	30.3	34.2
CH044	Natural rubber and other synthetic rubber:			
	Establishments (number)	33	34	33
	Employees (thousands)	7	8	7
	Capacity utilization (percent)	79	81	79
	U.S. production (million dollars)	2,859	2,945	2,845
	U.S. exports (million dollars)	702	822	808
	U.S. imports (million dollars)	1,385	1,130	1,039
	Apparent U.S. consumption (million dollars)	3,542	3,253	3,076
	Trade balance (million dollars)	(683)	(308)	(231)
	Ratio of imports to apparent consumption (percent)	39.1	34.7	33.8
	Ratio of exports to shipments (percent)	24.6	27.9	28.4
CH045	Pneumatic tires and tubes (new):			
	Establishments (number)	39	38	38
	Employees (thousands)	66	65	63
	Capacity utilization (percent)	98	96	95
	U.S. shipments (million dollars)	10,700	10,500	10,200
	U.S. exports (million dollars)	812	1,097	1,215
	U.S. imports (million dollars)	2,644	2,522	2,227
	Apparent U.S. consumption (million dollars)	12,532	11,925	11,212
	Trade balance (million dollars)	(1,832)	(1,425)	(1,012)
	Ratio of imports to apparent consumption (percent)	21.1	21.1	19.9
	Ratio of exports to shipments (percent)	7.6	10.4	11.9

See footnotes at end of table.

Table B-3--Continued
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
CH046	Other tires:			
	Establishments (number)	2,210	1,970	1,850
	Employees (thousands)	8	7	6
	Capacity utilization (percent)	85	83	88
	U.S. shipments (million dollars)	2,000	2,100	2,000
	U.S. exports (million dollars)	51	49	58
	U.S. imports (million dollars)	77	67	78
	Apparent U.S. consumption (million dollars)	2,026	2,118	2,020
	Trade balance (million dollars)	(26)	(18)	(20)
	Ratio of imports to apparent consumption (percent)	3.8	3.2	3.9
	Ratio of exports to shipments (percent)	2.6	2.3	2.9
CH047	Plastic or rubber semifabricated forms:			
	Establishments (number)	13,300	13,300	13,300
	Employees (thousands)	665	665	665
	Capacity utilization (percent)	83	83	83
	U.S. shipments (million dollars)	17,180	18,900	18,000
	U.S. exports (million dollars)	2,038	2,519	2,603
	U.S. imports (million dollars)	1,522	1,652	1,743
	Apparent U.S. consumption (million dollars)	16,664	18,033	17,140
	Trade balance (million dollars)	516	867	860
	Ratio of imports to apparent consumption (percent)	9.1	9.2	10.2
	Ratio of exports to shipments (percent)	11.9	13.3	14.5
CH048	Plastic containers and closures:			
	Establishments (number)	1,845	1,882	1,860
	Employees (thousands)	134	135	134
	Capacity utilization (percent)	92	90	90
	U.S. shipments (million dollars)	8,390	8,560	8,730
	U.S. exports (million dollars)	418	575	681
	U.S. imports (million dollars)	659	697	665
	Apparent U.S. consumption (million dollars)	8,631	8,682	8,714
	Trade balance (million dollars)	(241)	(122)	16
	Ratio of imports to apparent consumption (percent)	7.6	8.0	7.6
	Ratio of exports to shipments (percent)	5.0	6.7	7.8
CH049	Hose, belting and plastic pipe:			
	Establishments (number)	245	245	245
	Employees (thousands)	40	40	40
	Capacity utilization (percent)	70	70	70
	U.S. shipments (million dollars)	4,700	4,800	4,850
	U.S. exports (million dollars)	578	670	739
	U.S. imports (million dollars)	579	617	589
	Apparent U.S. consumption (million dollars)	4,701	4,747	4,700
	Trade balance (million dollars)	(1)	53	150
	Ratio of imports to apparent consumption (percent)	12.3	13.0	12.5
	Ratio of exports to shipments (percent)	12.3	14.0	15.2
CH050	Miscellaneous rubber or plastics products:			
	Establishments (number)	13,200	13,100	12,900
	Employees (thousands)	672	665	620
	Capacity utilization (percent)	85	85	89
	U.S. shipments (million dollars)	73,500	71,500	70,000
	U.S. exports (million dollars)	1,239	1,734	1,997
	U.S. imports (million dollars)	2,744	2,888	2,929
	Apparent U.S. consumption (million dollars)	75,005	72,654	70,932
	Trade balance (million dollars)	(1,505)	(1,154)	(932)
	Ratio of imports to apparent consumption (percent)	3.7	4.0	4.1
	Ratio of exports to shipments (percent)	1.7	2.4	2.9

See footnotes at end of table.

Table B-3--Continued
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
CH051	Gelatin:			
	Establishments (number)	8	8	8
	Employees (thousands)	1	1	1
	Capacity utilization (percent)	91	88	88
	U.S. shipments (million dollars)	125	125	120
	U.S. exports (million dollars)	23	30	31
	U.S. imports (million dollars)	67	66	80
	Apparent U.S. consumption (million dollars)	169	161	169
	Trade balance (million dollars)	(44)	(36)	(49)
	Ratio of imports to apparent consumption (percent)	40.0	41.0	47.3
	Ratio of exports to shipments (percent)	18.0	24.0	25.8

1/ Not available.
2/ Production is based on value of active ingredients; trade is based on value of products formulated for immediate use, valued much higher than ingredient cost.

Table B-4
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
	Minerals and metals:			
MM001	Clays and nonmetallic minerals and products:			
	Establishments (number)	315	323	323
	Employees (thousands)	14	14	14
	Capacity utilization (percent)	85	89	76
	U.S. shipments (million dollars)	2,500	2,600	2,600
	U.S. exports (million dollars)	634	701	748
	U.S. imports (million dollars)	76	122	87
	Apparent U.S. consumption (million dollars)	1,942	2,021	1,939
	Trade balance (million dollars)	558	579	661
	Ratio of imports to apparent consumption (percent)	3.9	6.0	4.5
	Ratio of exports to shipments (percent)	25.4	27.0	28.8
MM002	Certain miscellaneous mineral substances:			
	Establishments (number)	10	10	10
	Employees (thousands)	2	2	2
	Capacity utilization (percent)	87	85	80
	U.S. shipments (million dollars)	45	42	40
	U.S. exports (million dollars)	5	4	19
	U.S. imports (million dollars)	70	56	41
	Apparent U.S. consumption (million dollars)	110	94	62
	Trade balance (million dollars)	(65)	(52)	(22)
	Ratio of imports to apparent consumption (percent)	63.6	59.6	66.1
	Ratio of exports to shipments (percent)	11.1	9.5	47.5
MM003	Iron ores and concentrates:			
	Establishments (number)	21	23	23
	Employees (thousands)	7	8	8
	Capacity utilization (percent)	80	75	71
	U.S. shipments (million dollars)	1,901	1,800	1,700
	U.S. exports (million dollars)	193	123	156
	U.S. imports (million dollars)	520	560	437
	Apparent U.S. consumption (million dollars)	2,228	2,237	1,981
	Trade balance (million dollars)	(327)	(437)	(281)
	Ratio of imports to apparent consumption (percent)	23.3	25.0	22.1
	Ratio of exports to shipments (percent)	10.2	6.8	9.2
MM004	Copper ores and concentrates:			
	Establishments (number)	68	68	70
	Employees (thousands)	12	13	13
	Capacity utilization (percent)	84	84	85
	U.S. shipments (million dollars)	2,595	2,520	2,350
	U.S. exports (million dollars)	571	446	382
	U.S. imports (million dollars)	53	134	67
	Apparent U.S. consumption (million dollars)	2,077	2,208	2,035
	Trade balance (million dollars)	518	312	315
	Ratio of imports to apparent consumption (percent)	2.6	6.1	3.3
	Ratio of exports to shipments (percent)	22.0	17.7	16.3
MM005	Lead ores and residues:			
	Establishments (number)	15	15	15
	Employees (thousands)	2	2	2
	Capacity utilization (percent)	62	70	72
	U.S. shipments (million dollars)	200	265	190
	U.S. exports (million dollars)	30	62	38
	U.S. imports (million dollars)	4	4	3
	Apparent U.S. consumption (million dollars)	174	207	155
	Trade balance (million dollars)	26	58	35
	Ratio of imports to apparent consumption (percent)	2.3	1.9	1.9
	Ratio of exports to shipments (percent)	15.0	23.4	20.0

See footnotes at end of table.

Table B-4--Continued
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
MM006	Zinc ores and residues:			
	Establishments (number)	25	26	26
	Employees (thousands)	2	3	3
	Capacity utilization (percent)	79	79	81
	U.S. shipments (million dollars)	395	600	410
	U.S. exports (million dollars)	75	269	232
	U.S. imports (million dollars)	32	24	28
	Apparent U.S. consumption (million dollars)	352	355	206
	Trade balance (million dollars)	43	245	204
	Ratio of imports to apparent consumption (percent)	9.1	6.8	13.6
	Ratio of exports to shipments (percent)	19.0	44.8	56.6
MM007	Certain ores, concentrates, ash, and residues:			
	Establishments (number)	50	50	50
	Employees (thousands)	3	3	3
	Capacity utilization (percent)	50	50	45
	U.S. shipments (million dollars)	800	780	750
	U.S. exports (million dollars)	550	362	292
	U.S. imports (million dollars)	633	495	473
	Apparent U.S. consumption (million dollars)	883	913	931
	Trade balance (million dollars)	(83)	(133)	(181)
	Ratio of imports to apparent consumption (percent)	71.7	54.2	50.8
	Ratio of exports to shipments (percent)	68.8	46.4	38.9
MM008	Precious metal ores and concentrates:			
	Establishments (number)	460	510	500
	Employees (thousands)	18	18	18
	Capacity utilization (percent)	94	99	85
	U.S. shipments (million dollars)	2,890	3,105	2,740
	U.S. exports (million dollars)	2	13	4
	U.S. imports (million dollars)	4	30	11
	Apparent U.S. consumption (million dollars)	2,892	3,122	2,747
	Trade balance (million dollars)	(2)	(17)	(7)
	Ratio of imports to apparent consumption (percent)	0.1	1.0	0.4
	Ratio of exports to shipments (percent)	0.1	0.4	0.1
MM009	Certain nonmetallic minerals and articles:			
	Establishments (number)	20,500	20,400	20,400
	Employees (thousands)	357	353	353
	Capacity utilization (percent)	1/	1/	1/
	U.S. shipments (million dollars)	41,900	42,300	42,100
	U.S. exports (million dollars)	820	982	1,031
	U.S. imports (million dollars)	1,845	1,923	1,663
	Apparent U.S. consumption (million dollars)	42,925	43,241	42,732
	Trade balance (million dollars)	(1,025)	(941)	(632)
	Ratio of imports to apparent consumption (percent)	4.3	4.4	3.9
	Ratio of exports to shipments (percent)	2.0	2.3	2.4
MM010	Refractory and heat-insulating articles:			
	Establishments (number)	130	130	125
	Employees (thousands)	10	10	9
	Capacity utilization (percent)	76	74	68
	U.S. shipments (million dollars)	2,056	2,000	1,800
	U.S. exports (million dollars)	208	251	240
	U.S. imports (million dollars)	137	136	161
	Apparent U.S. consumption (million dollars)	1,985	1,885	1,721
	Trade balance (million dollars)	71	115	79
	Ratio of imports to apparent consumption (percent)	6.9	7.2	9.4
	Ratio of exports to shipments (percent)	10.1	12.6	13.3

See footnotes at end of table.

Table B-4--Continued
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
MM011	Ceramic bricks and miscellaneous ceramic construction articles:			
	Establishments (number)	326	328	328
	Employees (thousands)	20	19	19
	Capacity utilization (percent)	77	74	71
	U.S. shipments (million dollars)	1,284	1,200	900
	U.S. exports (million dollars)	12	18	18
	U.S. imports (million dollars)	27	22	20
	Apparent U.S. consumption (million dollars)	1,299	1,204	902
	Trade balance (million dollars)	(15)	(4)	(2)
	Ratio of imports to apparent consumption (percent)	2.1	1.8	2.2
	Ratio of exports to shipments (percent)	0.9	1.5	2.0
MM012	Ceramic floor and wall tiles:			
	Establishments (number)	118	150	150
	Employees (thousands)	10	10	10
	Capacity utilization (percent)	77	74	71
	U.S. shipments (million dollars)	698	687	582
	U.S. exports (million dollars)	18	21	21
	U.S. imports (million dollars)	431	421	365
	Apparent U.S. consumption (million dollars)	1,111	1,087	926
	Trade balance (million dollars)	(413)	(400)	(344)
	Ratio of imports to apparent consumption (percent)	38.8	38.7	39.4
	Ratio of exports to shipments (percent)	2.6	3.1	3.6
MM013	Ceramic sanitary fixtures:			
	Establishments (number)	72	73	73
	Employees (thousands)	9	9	9
	Capacity utilization (percent)	77	74	71
	U.S. shipments (million dollars)	822	833	780
	U.S. exports (million dollars)	41	54	46
	U.S. imports (million dollars)	73	72	64
	Apparent U.S. consumption (million dollars)	854	851	798
	Trade balance (million dollars)	(32)	(18)	(18)
	Ratio of imports to apparent consumption (percent)	8.5	8.5	8.0
	Ratio of exports to shipments (percent)	5.0	6.5	5.9
MM014	Ceramic table, toilet, and kitchen articles:			
	Establishments (number)	78	78	78
	Employees (thousands)	6	6	5
	Capacity utilization (percent)	1/	1/	1/
	U.S. shipments (million dollars)	330	325	300
	U.S. exports (million dollars)	53	55	70
	U.S. imports (million dollars)	787	779	778
	Apparent U.S. consumption (million dollars)	1,064	1,049	1,008
	Trade balance (million dollars)	(734)	(724)	(708)
	Ratio of imports to apparent consumption (percent)	74.0	74.3	77.2
	Ratio of exports to shipments (percent)	16.1	16.9	23.3
MM015	Miscellaneous ceramic articles:			
	Establishments (number)	823	856	856
	Employees (thousands)	13	14	14
	Capacity utilization (percent)	77	74	71
	U.S. shipments (million dollars)	518	520	470
	U.S. exports (million dollars)	123	135	148
	U.S. imports (million dollars)	565	526	562
	Apparent U.S. consumption (million dollars)	960	911	884
	Trade balance (million dollars)	(442)	(391)	(414)
	Ratio of imports to apparent consumption (percent)	58.9	57.7	63.6
	Ratio of exports to shipments (percent)	23.7	26.0	31.5

See footnotes at end of table.

Table B-4--Continued
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
MM016	Flat glass and certain flat glass products:			
	Establishments (number)	525	525	525
	Employees (thousands)	45	45	45
	Capacity utilization (percent)	1/	1/	1/
	U.S. shipments (million dollars)	6,820	6,750	6,660
	U.S. exports (million dollars)	533	751	786
	U.S. imports (million dollars)	632	614	584
	Apparent U.S. consumption (million dollars)	6,919	6,613	6,458
	Trade balance (million dollars)	(99)	137	202
	Ratio of imports to apparent consumption (percent)	9.1	9.3	9.0
	Ratio of exports to shipments (percent)	7.8	11.1	11.8
MM017	Glass containers:			
	Establishments (number)	105	105	105
	Employees (thousands)	38	38	38
	Capacity utilization (percent)	1/	1/	85
	U.S. shipments (million dollars)	4,836	5,004	4,975
	U.S. exports (million dollars)	45	98	119
	U.S. imports (million dollars)	175	214	234
	Apparent U.S. consumption (million dollars)	4,966	5,120	5,090
	Trade balance (million dollars)	(130)	(116)	(115)
	Ratio of imports to apparent consumption (percent)	3.5	4.2	4.6
	Ratio of exports to shipments (percent)	0.9	2.0	2.4
MM018	Household glassware:			
	Establishments (number)	237	237	237
	Employees (thousands)	26	26	26
	Capacity utilization (percent)	1/	1/	1/
	U.S. shipments (million dollars)	1,382	1,400	1,500
	U.S. exports (million dollars)	86	123	137
	U.S. imports (million dollars)	513	524	513
	Apparent U.S. consumption (million dollars)	1,809	1,801	1,876
	Trade balance (million dollars)	(427)	(401)	(376)
	Ratio of imports to apparent consumption (percent)	28.4	29.1	27.3
	Ratio of exports to shipments (percent)	6.2	8.8	9.1
MM019	Certain glass and glass products:			
	Establishments (number)	180	180	180
	Employees (thousands)	57	57	57
	Capacity utilization (percent)	1/	1/	1/
	U.S. shipments (million dollars)	2,090	2,100	2,200
	U.S. exports (million dollars)	295	344	364
	U.S. imports (million dollars)	297	286	319
	Apparent U.S. consumption (million dollars)	2,092	2,042	2,155
	Trade balance (million dollars)	(2)	58	45
	Ratio of imports to apparent consumption (percent)	14.2	14.0	14.8
	Ratio of exports to shipments (percent)	14.1	16.4	16.5
MM020	Fiber glass products:			
	Establishments (number)	11	11	11
	Employees (thousands)	30	30	30
	Capacity utilization (percent)	1/	1/	1/
	U.S. shipments (million dollars)	3,385	3,400	3,400
	U.S. exports (million dollars)	356	347	384
	U.S. imports (million dollars)	112	112	127
	Apparent U.S. consumption (million dollars)	3,141	3,165	3,143
	Trade balance (million dollars)	244	235	257
	Ratio of imports to apparent consumption (percent)	3.6	3.5	4.0
	Ratio of exports to shipments (percent)	10.5	10.2	11.3

See footnotes at end of table.

Table B-4--Continued
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
MM021	Natural and synthetic gemstones:			
	Establishments (number)	457	457	457
	Employees (thousands)	7	7	7
	Capacity utilization (percent)	1/	1/	1/
	U.S. shipments (million dollars)	1,500	1,600	1,600
	U.S. exports (million dollars)	1,361	545	452
	U.S. imports (million dollars)	5,069	4,703	4,681
	Apparent U.S. consumption (million dollars)	5,208	5,758	5,829
	Trade balance (million dollars)	(3,708)	(4,158)	(4,229)
	Ratio of imports to apparent consumption (percent)	97.3	81.7	80.3
	Ratio of exports to shipments (percent)	90.7	34.1	28.3
MM022	Precious metals and related articles:			
	Establishments (number)	93	89	89
	Employees (thousands)	7	7	7
	Capacity utilization (percent)	80	85	1/
	U.S. shipments (million dollars)	6,190	6,445	6,000
	U.S. exports (million dollars)	3,167	3,815	4,216
	U.S. imports (million dollars)	3,941	3,758	4,406
	Apparent U.S. consumption (million dollars)	6,964	6,388	6,190
	Trade balance (million dollars)	(774)	57	(190)
	Ratio of imports to apparent consumption (percent)	56.6	58.8	71.2
	Ratio of exports to shipments (percent)	51.2	59.2	70.3
MM023	Pig iron:			
	Establishments (number)	16	15	15
	Employees (thousands)	23	23	22
	Capacity utilization (percent)	65	65	65
	U.S. shipments (million dollars)	9,112	8,991	8,420
	U.S. exports (million dollars)	1	2	2
	U.S. imports (million dollars)	73	60	75
	Apparent U.S. consumption (million dollars)	9,184	9,049	8,493
	Trade balance (million dollars)	(72)	(58)	(73)
	Ratio of imports to apparent consumption (percent)	0.8	0.7	0.9
	Ratio of exports to shipments (percent)	0.0	0.0	0.0
MM024	Ferroalloys:			
	Establishments (number)	34	34	38
	Employees (thousands)	4	4	4
	Capacity utilization (percent)	90	75	73
	U.S. shipments (million dollars)	942	900	880
	U.S. exports (million dollars)	86	94	99
	U.S. imports (million dollars)	1,050	908	835
	Apparent U.S. consumption (million dollars)	1,906	1,714	1,616
	Trade balance (million dollars)	(964)	(814)	(736)
	Ratio of imports to apparent consumption (percent)	55.1	53.0	51.7
	Ratio of exports to shipments (percent)	9.1	10.4	11.3
MM025	Iron and steel waste and scrap:			
	Establishments (number)	1,220	1,220	1,250
	Employees (thousands)	23	23	25
	Capacity utilization (percent)	75	75	78
	U.S. shipments (million dollars)	5,508	5,566	5,065
	U.S. exports (million dollars)	1,755	1,642	1,240
	U.S. imports (million dollars)	173	180	149
	Apparent U.S. consumption (million dollars)	3,926	4,104	3,974
	Trade balance (million dollars)	1,582	1,462	1,091
	Ratio of imports to apparent consumption (percent)	4.4	4.4	3.7
	Ratio of exports to shipments (percent)	31.9	29.5	24.5

See footnotes at end of table.

Table B-4--Continued
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
MM026	Direct reduced iron, ferrous powders, and grit and shot:			
	Establishments (number)	23	23	24
	Employees (thousands)	1	1	1
	Capacity utilization (percent)	64	76	79
	U.S. shipments (million dollars)	296	315	316
	U.S. exports (million dollars)	34	51	50
	U.S. imports (million dollars)	72	92	106
	Apparent U.S. consumption (million dollars)	334	356	372
	Trade balance (million dollars)	(38)	(41)	(56)
	Ratio of imports to apparent consumption (percent)	21.6	25.8	28.5
	Ratio of exports to shipments (percent)	11.5	16.2	15.8
MM027	Steel mill products, all grades:			
	Establishments (number)	900	880	860
	Employees (thousands)	208	203	193
	Capacity utilization (percent)	85	85	73
	U.S. shipments (million dollars)	52,900	51,000	46,000
	U.S. exports (million dollars)	2,809	2,784	3,685
	U.S. imports (million dollars)	8,958	8,385	7,892
	Apparent U.S. consumption (million dollars)	59,049	56,601	50,207
	Trade balance (million dollars)	(6,149)	(5,601)	(4,207)
	Ratio of imports to apparent consumption (percent)	15.2	14.8	15.7
	Ratio of exports to shipments (percent)	5.3	5.5	8.0
MM028	Steel pipe and tube fittings, and certain cast products:			
	Establishments (number)	600	600	500
	Employees (thousands)	50	50	45
	Capacity utilization (percent)	75	80	80
	U.S. shipments (million dollars)	4,500	4,500	4,000
	U.S. exports (million dollars)	326	422	479
	U.S. imports (million dollars)	368	364	348
	Apparent U.S. consumption (million dollars)	4,542	4,442	3,869
	Trade balance (million dollars)	(42)	58	131
	Ratio of imports to apparent consumption (percent)	8.1	8.2	9.0
	Ratio of exports to shipments (percent)	7.2	9.4	12.0
MM029	Fabricated structurals:			
	Establishments (number)	2,420	2,365	2,360
	Employees (thousands)	85	84	70
	Capacity utilization (percent)	65	65	1/
	U.S. shipments (million dollars)	8,434	8,070	8,500
	U.S. exports (million dollars)	58	84	110
	U.S. imports (million dollars)	79	72	47
	Apparent U.S. consumption (million dollars)	8,455	8,058	8,437
	Trade balance (million dollars)	(21)	12	63
	Ratio of imports to apparent consumption (percent)	0.9	0.9	0.6
	Ratio of exports to shipments (percent)	0.7	1.0	1.3
MM030	Metal construction components:			
	Establishments (number)	3,800	3,750	3,600
	Employees (thousands)	155	153	150
	Capacity utilization (percent)	75	75	1/
	U.S. shipments (million dollars)	10,600	10,300	9,900
	U.S. exports (million dollars)	292	335	377
	U.S. imports (million dollars)	182	150	139
	Apparent U.S. consumption (million dollars)	10,490	10,115	9,662
	Trade balance (million dollars)	110	185	238
	Ratio of imports to apparent consumption (percent)	1.7	1.5	1.4
	Ratio of exports to shipments (percent)	2.8	3.3	3.8

See footnotes at end of table.

Table B-4--Continued
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
MM031	Metallic containers:			
	Establishments (number)	590 2/	590 2/	565 2/
	Employees (thousands)	70 2/	70 2/	66 2/
	Capacity utilization (percent)	70 2/	75 2/	85 2/
	U.S. shipments (million dollars)	16,548 2/	17,326 2/	17,184 2/
	U.S. exports (million dollars)	308	401	511
	U.S. imports (million dollars)	269	257	244
	Apparent U.S. consumption (million dollars)	16,509	17,182	16,917
	Trade balance (million dollars)	39	144	267
	Ratio of imports to apparent consumption (percent)	1.6	1.5	1.4
	Ratio of exports to shipments (percent)	1.9	2.3	3.0
MM032	Wire products of iron, steel, aluminum, copper, and nickel:			
	Establishments (number)	1,450	1,450	1,400
	Employees (thousands)	65	65	64
	Capacity utilization (percent)	80	80	75
	U.S. shipments (million dollars)	10,164	8,602	9,400
	U.S. exports (million dollars)	190	249	303
	U.S. imports (million dollars)	772	648	524
	Apparent U.S. consumption (million dollars)	10,746	9,001	9,621
	Trade balance (million dollars)	(582)	(399)	(221)
	Ratio of imports to apparent consumption (percent)	7.2	7.2	5.4
	Ratio of exports to shipments (percent)	1.9	2.9	3.2
MM033	Chain:			
	Establishments (number)	33	33	33
	Employees (thousands)	7	7	7
	Capacity utilization (percent)	70	70	75
	U.S. shipments (million dollars)	635	625	690
	U.S. exports (million dollars)	326	312	343
	U.S. imports (million dollars)	427	476	478
	Apparent U.S. consumption (million dollars)	736	789	825
	Trade balance (million dollars)	(101)	(164)	(135)
	Ratio of imports to apparent consumption (percent)	58.0	60.3	57.9
	Ratio of exports to shipments (percent)	51.3	49.9	49.7
MM034	Industrial fasteners of base metal:			
	Establishments (number)	625	625	700
	Employees (thousands)	30	30	39
	Capacity utilization (percent)	70	75	75
	U.S. shipments (million dollars)	4,352	4,483	1/
	U.S. exports (million dollars)	383	651	664
	U.S. imports (million dollars)	1,490	1,486	1,330
	Apparent U.S. consumption (million dollars)	5,459	5,318	1/
	Trade balance (million dollars)	(1,107)	(835)	(666)
	Ratio of imports to apparent consumption (percent)	27.3	27.9	1/
	Ratio of exports to shipments (percent)	8.8	14.5	1/
MM035	Cooking and kitchen ware:			
	Establishments (number)	18	18	18
	Employees (thousands)	4	4	4
	Capacity utilization (percent)	70	70	75
	U.S. shipments (million dollars)	625	620	680
	U.S. exports (million dollars)	138	170	218
	U.S. imports (million dollars)	735	725	751
	Apparent U.S. consumption (million dollars)	1,222	1,175	1,213
	Trade balance (million dollars)	(597)	(555)	(533)
	Ratio of imports to apparent consumption (percent)	60.1	61.7	61.9
	Ratio of exports to shipments (percent)	22.1	27.4	32.1

See footnotes at end of table.

Table B-4--Continued
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
MM036	Metal sanitary ware:			
	Establishments (number)	190	190	185 2/
	Employees (thousands)	18	17	16 2/
	Capacity utilization (percent)	80	75	70 2/
	U.S. shipments (million dollars)	3,000	2,750	2,668 2/
	U.S. exports (million dollars)	51	71	72
	U.S. imports (million dollars)	107	101	92
	Apparent U.S. consumption (million dollars)	3,056	2,780	2,688
	Trade balance (million dollars)	(56)	(30)	(20)
	Ratio of imports to apparent consumption (percent)	3.5	3.6	3.4
	Ratio of exports to shipments (percent)	1.7	2.6	2.7
MM037	Iron construction castings and other nonmalleable cast-iron articles:			
	Establishments (number)	29	29	27
	Employees (thousands)	2	2	2
	Capacity utilization (percent)	85	85	85
	U.S. shipments (million dollars)	145	143	142
	U.S. exports (million dollars)	50	31	31
	U.S. imports (million dollars)	65	58	51
	Apparent U.S. consumption (million dollars)	160	170	162
	Trade balance (million dollars)	(15)	(27)	(20)
	Ratio of imports to apparent consumption (percent)	40.6	34.1	31.5
	Ratio of exports to shipments (percent)	34.5	21.7	21.8
MM038	Copper and related articles:			
	Establishments (number)	1,085	840	840
	Employees (thousands)	40	39	37
	Capacity utilization (percent)	90	91	86
	U.S. shipments (million dollars)	13,220	12,280	10,430
	U.S. exports (million dollars)	1,539	1,833	1,843
	U.S. imports (million dollars)	2,327	1,966	1,822
	Apparent U.S. consumption (million dollars)	14,008	12,413	10,409
	Trade balance (million dollars)	(788)	(133)	21
	Ratio of imports to apparent consumption (percent)	16.6	15.8	17.5
	Ratio of exports to shipments (percent)	11.6	14.9	17.7
MM039	Unwrought aluminum:			
	Establishments (number)	21	21	20
	Employees (thousands)	21	20	20
	Capacity utilization (percent)	97	97	97
	U.S. shipments (million dollars)	8,480	7,200	5,400
	U.S. exports (million dollars)	2,044	1,898	1,842
	U.S. imports (million dollars)	2,561	2,252	2,021
	Apparent U.S. consumption (million dollars)	8,997	7,554	5,579
	Trade balance (million dollars)	(517)	(354)	(179)
	Ratio of imports to apparent consumption (percent)	28.5	29.8	36.2
	Ratio of exports to shipments (percent)	24.1	26.4	34.1
MM040	Aluminum mill products:			
	Establishments (number)	436	436	425
	Employees (thousands)	54	54	51
	Capacity utilization (percent)	1/	1/	1/
	U.S. shipments (million dollars)	16,500	14,100	12,700
	U.S. exports (million dollars)	1,386	1,512	1,696
	U.S. imports (million dollars)	1,253	1,222	963
	Apparent U.S. consumption (million dollars)	16,367	13,810	11,967
	Trade balance (million dollars)	133	290	733
	Ratio of imports to apparent consumption (percent)	7.7	8.8	8.0
	Ratio of exports to shipments (percent)	8.4	10.7	13.4

See footnotes at end of table.

Table B-4--Continued
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
MM041	Lead and related articles:			
	Establishments (number)	54	55	56
	Employees (thousands)	3	3	3
	Capacity utilization (percent)	79	87	77
	U.S. shipments (million dollars)	1,380	1,690	1,220
	U.S. exports (million dollars)	66	107	113
	U.S. imports (million dollars)	97	91	80
	Apparent U.S. consumption (million dollars)	1,411	1,674	1,187
	Trade balance (million dollars)	(31)	16	33
	Ratio of imports to apparent consumption (percent)	6.9	5.4	6.7
	Ratio of exports to shipments (percent)	4.8	6.3	9.3
MM042	Zinc and related articles:			
	Establishments (number)	37	40	40
	Employees (thousands)	4	4	4
	Capacity utilization (percent)	93	95	91
	U.S. shipments (million dollars)	810	765	530
	U.S. exports (million dollars)	118	118	91
	U.S. imports (million dollars)	1,214	1,034	663
	Apparent U.S. consumption (million dollars)	1,906	1,681	1,102
	Trade balance (million dollars)	(1,096)	(916)	(572)
	Ratio of imports to apparent consumption (percent)	63.7	61.5	60.2
	Ratio of exports to shipments (percent)	14.6	15.4	17.2
MM043	Certain base metals and chemical elements:			
	Establishments (number)	70	70	70
	Employees (thousands)	6	6	6
	Capacity utilization (percent)	78	75	70
	U.S. shipments (million dollars)	1,580	1,550	1,400
	U.S. exports (million dollars)	1,009	1,048	991
	U.S. imports (million dollars)	2,447	1,925	1,866
	Apparent U.S. consumption (million dollars)	3,018	2,427	2,275
	Trade balance (million dollars)	(1,438)	(877)	(875)
	Ratio of imports to apparent consumption (percent)	81.1	79.3	82.0
	Ratio of exports to shipments (percent)	63.9	67.6	70.8
MM044	Nonpowered handtools:			
	Establishments (number)	1,255	1,252	1,252
	Employees (thousands)	110	110	110
	Capacity utilization (percent)	75	75	75
	U.S. shipments (million dollars)	14,289	15,003	1/
	U.S. exports (million dollars)	850	1,063	1,091
	U.S. imports (million dollars)	1,383	1,378	1,620
	Apparent U.S. consumption (million dollars)	14,822	15,318	1/
	Trade balance (million dollars)	(533)	(315)	(529)
	Ratio of imports to apparent consumption (percent)	9.3	9.0	1/
	Ratio of exports to shipments (percent)	5.9	7.1	1/
MM045	Cutlery other than tableware, certain sewing implements, etc.:			
	Establishments (number)	165	150	135
	Employees (thousands)	12	11	10
	Capacity utilization (percent)	85	85	85
	U.S. shipments (million dollars)	1,700	1,600	1,500
	U.S. exports (million dollars)	159	223	227
	U.S. imports (million dollars)	393	415	438
	Apparent U.S. consumption (million dollars)	1,934	1,792	1,711
	Trade balance (million dollars)	(234)	(192)	(211)
	Ratio of imports to apparent consumption (percent)	20.3	23.2	25.6
	Ratio of exports to shipments (percent)	9.4	13.9	15.1

See footnotes at end of table.

Table B-4--Continued
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
MM046	Table flatware and related products:			
	Establishments (number)	6	6	6
	Employees (thousands)	5	5	5 2/
	Capacity utilization (percent)	90	90	80 2/
	U.S. shipments (million dollars)	235	205 2/	200 2/
	U.S. exports (million dollars)	17	43	24
	U.S. imports (million dollars)	185	172	196
	Apparent U.S. consumption (million dollars)	403	334	372
	Trade balance (million dollars)	(168)	(129)	(172)
	Ratio of imports to apparent consumption (percent)	45.9	51.5	52.7
	Ratio of exports to shipments (percent)	7.2	21.0	12.0
MM047	Certain builders' hardware:			
	Establishments (number)	795	790	790
	Employees (thousands)	50	50	60
	Capacity utilization (percent)	80	75	75
	U.S. shipments (million dollars)	3,554	3,625	1/
	U.S. exports (million dollars)	417	554	562
	U.S. imports (million dollars)	829	843	787
	Apparent U.S. consumption (million dollars)	3,966	3,914	1/
	Trade balance (million dollars)	(412)	(289)	(225)
	Ratio of imports to apparent consumption (percent)	20.9	21.5	1/
	Ratio of exports to shipments (percent)	11.7	15.3	1/
MM048	Miscellaneous products of base metal:			
	Establishments (number)	2,035	2,035	2,035
	Employees (thousands)	105	106	1/
	Capacity utilization (percent)	70	70	70
	U.S. shipments (million dollars)	25,357	26,118	1/
	U.S. exports (million dollars)	1,112	1,410	1,777
	U.S. imports (million dollars)	2,053	2,123	2,099
	Apparent U.S. consumption (million dollars)	26,298	26,831	1/
	Trade balance (million dollars)	(941)	(713)	(322)
	Ratio of imports to apparent consumption (percent)	7.8	7.9	1/
	Ratio of exports to shipments (percent)	4.4	5.4	1/

1/ Not available.
2/ Estimated.

Table B-5
Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
	Machinery and equipment:			
ME001	Aircraft engines and gas turbines:			
	Establishments (number)	26	26	26
	Employees (thousands)	157	156	155
	Capacity utilization (percent)	85	81	80
	U.S. shipments (million dollars)	15,429	16,012	16,000
	U.S. exports (million dollars)	7,426	7,829	8,330
	U.S. imports (million dollars)	4,119	5,083	5,373
	Apparent U.S. consumption (million dollars)	12,122	13,266	13,043
	Trade balance (million dollars)	3,307	2,746	2,957
	Ratio of imports to apparent consumption (percent)	34.0	38.3	41.2
	Ratio of exports to shipments (percent)	48.1	48.9	52.1
ME002	Internal combustion piston engines, other than for aircraft:			
	Establishments (number)	55	55	55
	Employees (thousands)	136	132	132
	Capacity utilization (percent)	72	71	69
	U.S. shipments (million dollars)	30,054	30,100	28,110
	U.S. exports (million dollars)	4,611	5,596	5,850
	U.S. imports (million dollars)	5,824	5,731	5,163
	Apparent U.S. consumption (million dollars)	31,267	30,235	27,423
	Trade balance (million dollars)	(1,213)	(135)	687
	Ratio of imports to apparent consumption (percent)	18.6	19.0	18.8
	Ratio of exports to shipments (percent)	15.3	18.6	20.8
ME003	Pumps for liquids:			
	Establishments (number)	608	602	580
	Employees (thousands)	62	58	53
	Capacity utilization (percent)	58	62	59
	U.S. shipments (million dollars)	6,598	6,928	6,720
	U.S. exports (million dollars)	1,375	1,542	1,766
	U.S. imports (million dollars)	1,173	1,155	1,142
	Apparent U.S. consumption (million dollars)	6,396	6,541	6,096
	Trade balance (million dollars)	202	387	624
	Ratio of imports to apparent consumption (percent)	18.3	17.7	18.7
	Ratio of exports to shipments (percent)	20.8	22.3	26.3
ME004	Air-conditioning equipment and parts:			
	Establishments (number)	1,190	1,179	1,110
	Employees (thousands)	164	158	145
	Capacity utilization (percent)	80	78	75
	U.S. shipments (million dollars)	22,698	22,195	21,405
	U.S. exports (million dollars)	2,544	3,049	3,218
	U.S. imports (million dollars)	3,085	2,892	2,668
	Apparent U.S. consumption (million dollars)	23,239	22,038	20,855
	Trade balance (million dollars)	(541)	157	550
	Ratio of imports to apparent consumption (percent)	13.3	13.1	12.8
	Ratio of exports to shipments (percent)	11.2	13.7	15.0
ME005	Certain industrial thermal-processing equipment, etc.:			
	Establishments (number)	315	305	300
	Employees (thousands)	34	33	31
	Capacity utilization (percent)	67	65	65
	U.S. shipments (million dollars)	3,375	3,390	3,220
	U.S. exports (million dollars)	1,117	1,267	1,331
	U.S. imports (million dollars)	724	799	784
	Apparent U.S. consumption (million dollars)	2,982	2,922	2,673
	Trade balance (million dollars)	393	468	547
	Ratio of imports to apparent consumption (percent)	24.3	27.3	29.3
	Ratio of exports to shipments (percent)	33.1	37.4	41.3

Table B-5--Continued
Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
ME006	Commercial appliances:			
	Establishments (number)	564	564	560
	Employees (thousands)	42	42	40
	Capacity utilization (percent)	85	85	80
	U.S. shipments (million dollars)	6,650	6,849	7,055
	U.S. exports (million dollars)	1,314	1,482	1,663
	U.S. imports (million dollars)	1,049	996	1,020
	Apparent U.S. consumption (million dollars)	6,385	6,363	6,412
	Trade balance (million dollars)	265	486	643
	Ratio of imports to apparent consumption (percent)	16.4	15.7	15.9
	Ratio of exports to shipments (percent)	19.8	21.6	23.6
ME007	Electrical household appliances and certain heating equipment:			
	Establishments (number)	481	480	450
	Employees (thousands)	93	93	92
	Capacity utilization (percent)	85	85	80
	U.S. shipments (million dollars)	16,111	16,631	17,129
	U.S. exports (million dollars)	1,241	1,478	1,700
	U.S. imports (million dollars)	2,518	2,444	2,625
	Apparent U.S. consumption (million dollars)	17,388	17,597	18,054
	Trade balance (million dollars)	(1,277)	(966)	(925)
	Ratio of imports to apparent consumption (percent)	14.5	13.9	14.5
	Ratio of exports to shipments (percent)	7.7	8.9	9.9
ME008	Centrifuges and filtering and purifying equipment:			
	Establishments (number)	255	265	265
	Employees (thousands)	29	32	34
	Capacity utilization (percent)	70	75	80
	U.S. shipments (million dollars)	2,050	2,350	2,940
	U.S. exports (million dollars)	1,031	1,356	1,705
	U.S. imports (million dollars)	461	589	666
	Apparent U.S. consumption (million dollars)	1,480	1,583	1,901
	Trade balance (million dollars)	570	767	1,039
	Ratio of imports to apparent consumption (percent)	31.1	37.2	35.0
	Ratio of exports to shipments (percent)	50.3	57.7	58.0
ME009	Wrapping, packaging, and can-sealing machinery:			
	Establishments (number)	350	340	330
	Employees (thousands)	24	24	24
	Capacity utilization (percent)	85	85	83
	U.S. shipments (million dollars)	2,472	2,516	2,400
	U.S. exports (million dollars)	502	579	611
	U.S. imports (million dollars)	597	621	643
	Apparent U.S. consumption (million dollars)	2,567	2,558	2,432
	Trade balance (million dollars)	(95)	(42)	(32)
	Ratio of imports to apparent consumption (percent)	23.3	24.3	26.4
	Ratio of exports to shipments (percent)	20.3	23.0	25.5
ME010	Scales and weighing machinery:			
	Establishments (number)	105	108	102
	Employees (thousands)	7	7	7
	Capacity utilization (percent)	77	78	75
	U.S. shipments (million dollars)	612	667	585
	U.S. exports (million dollars)	83	91	102
	U.S. imports (million dollars)	147	153	151
	Apparent U.S. consumption (million dollars)	676	729	634
	Trade balance (million dollars)	(64)	(62)	(49)
	Ratio of imports to apparent consumption (percent)	21.7	21.0	23.8
	Ratio of exports to shipments (percent)	13.6	13.6	17.4

Table B-5--Continued
Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
ME011	Forklift trucks and similar industrial vehicles:			
	Establishments (number)	75	75	75
	Employees (thousands)	6	6	6
	Capacity utilization (percent)	75	75	75
	U.S. shipments (million dollars)	2,400	2,300	2,200
	U.S. exports (million dollars)	511	551	627
	U.S. imports (million dollars)	982	817	614
	Apparent U.S. consumption (million dollars)	2,871	2,566	2,187
	Trade balance (million dollars)	(471)	(266)	13
	Ratio of imports to apparent consumption (percent)	34.2	31.8	28.1
	Ratio of exports to shipments (percent)	21.3	24.0	28.5
ME012	Construction and mining equipment:			
	Establishments (number)	700	700	700
	Employees (thousands)	53	53	50
	Capacity utilization (percent)	70	70	68
	U.S. shipments (million dollars)	10,000	9,560	9,350
	U.S. exports (million dollars)	2,591	3,111	3,388
	U.S. imports (million dollars)	2,268	2,263	1,344
	Apparent U.S. consumption (million dollars)	9,677	8,712	7,306
	Trade balance (million dollars)	323	848	2,044
	Ratio of imports to apparent consumption (percent)	23.4	26.0	18.4
	Ratio of exports to shipments (percent)	25.9	32.5	36.2
ME013	Mineral processing machinery:			
	Establishments (number)	100	100	100
	Employees (thousands)	7	7	7
	Capacity utilization (percent)	57	57	57
	U.S. shipments (million dollars)	650	697	705
	U.S. exports (million dollars)	344	431	452
	U.S. imports (million dollars)	287	240	215
	Apparent U.S. consumption (million dollars)	593	506	468
	Trade balance (million dollars)	57	191	237
	Ratio of imports to apparent consumption (percent)	48.4	47.4	45.9
	Ratio of exports to shipments (percent)	52.9	61.8	64.1
ME014	Farm and garden machinery and equipment:			
	Establishments (number)	2,130	2,110	1,900
	Employees (thousands)	111	111	98
	Capacity utilization (percent)	63	62	57
	U.S. shipments (million dollars)	9,100	9,800	8,900
	U.S. exports (million dollars)	3,178	3,542	3,487
	U.S. imports (million dollars)	2,528	2,783	2,103
	Apparent U.S. consumption (million dollars)	8,450	9,041	7,516
	Trade balance (million dollars)	650	759	1,384
	Ratio of imports to apparent consumption (percent)	29.9	30.8	28.0
	Ratio of exports to shipments (percent)	34.9	36.1	39.2
ME015	Industrial food-processing and related machinery:			
	Establishments (number)	512	512	510
	Employees (thousands)	12	12	10
	Capacity utilization (percent)	88	88	80
	U.S. shipments (million dollars)	1,951	2,068	3,130
	U.S. exports (million dollars)	452	480	537
	U.S. imports (million dollars)	340	405	395
	Apparent U.S. consumption (million dollars)	1,839	1,993	2,988
	Trade balance (million dollars)	112	75	142
	Ratio of imports to apparent consumption (percent)	18.5	20.3	13.2
	Ratio of exports to shipments (percent)	23.2	23.2	17.2

Table B-5--Continued
Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
ME016	Pulp, paper, and paperboard machinery:			
	Establishments (number)	260	265	250
	Employees (thousands)	20	20	20
	Capacity utilization (percent)	78	80	78
	U.S. shipments (million dollars)	2,238	2,454	2,374
	U.S. exports (million dollars)	494	600	638
	U.S. imports (million dollars)	962	880	694
	Apparent U.S. consumption (million dollars)	2,706	2,734	2,430
	Trade balance (million dollars)	(468)	(280)	(256)
	Ratio of imports to apparent consumption (percent)	35.6	32.2	28.6
	Ratio of exports to shipments (percent)	22.1	24.4	26.9
ME017	Printing, typesetting, and bookbinding machinery and printing plates:			
	Establishments (number)	1,810	1,790	1,775
	Employees (thousands)	60	60	60
	Capacity utilization (percent)	88	85	85
	U.S. shipments (million dollars)	6,193	6,388	6,125
	U.S. exports (million dollars)	906	1,139	1,133
	U.S. imports (million dollars)	1,245	1,192	1,178
	Apparent U.S. consumption (million dollars)	6,532	6,441	6,170
	Trade balance (million dollars)	(339)	(53)	(45)
	Ratio of imports to apparent consumption (percent)	19.1	18.5	19.1
	Ratio of exports to shipments (percent)	14.6	17.8	18.5
ME018	Textile machinery and parts:			
	Establishments (number)	500	500	500
	Employees (thousands)	17	17	11
	Capacity utilization (percent)	58	58	58
	U.S. shipments (million dollars)	1,583	1,535	1,515
	U.S. exports (million dollars)	617	698	681
	U.S. imports (million dollars)	1,428	1,488	1,196
	Apparent U.S. consumption (million dollars)	2,394	2,325	2,030
	Trade balance (million dollars)	(811)	(790)	(515)
	Ratio of imports to apparent consumption (percent)	59.6	64.0	58.9
	Ratio of exports to shipments (percent)	39.0	45.5	45.0
ME019	Metal rolling mills and parts thereof:			
	Establishments (number)	20	20	18
	Employees (thousands)	4	4	3
	Capacity utilization (percent)	70	68	60
	U.S. shipments (million dollars)	345	340	270
	U.S. exports (million dollars)	242	252	185
	U.S. imports (million dollars)	142	169	130
	Apparent U.S. consumption (million dollars)	245	257	215
	Trade balance (million dollars)	100	83	55
	Ratio of imports to apparent consumption (percent)	58.0	65.8	60.5
	Ratio of exports to shipments (percent)	70.1	74.1	68.5
ME020	Machine tools for cutting metal and parts; tool holders, etc.:			
	Establishments (number)	870	860	830
	Employees (thousands)	45	44	41
	Capacity utilization (percent)	72	71	63
	U.S. shipments (million dollars)	4,282	4,398	4,100
	U.S. exports (million dollars)	1,044	1,151	1,181
	U.S. imports (million dollars)	2,429	2,269	2,205
	Apparent U.S. consumption (million dollars)	5,667	5,516	5,124
	Trade balance (million dollars)	(1,385)	(1,118)	(1,024)
	Ratio of imports to apparent consumption (percent)	42.9	41.1	43.0
	Ratio of exports to shipments (percent)	24.4	26.2	28.8

Table B-5--Continued
Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
ME021	Machine tools for metal forming and parts thereof:			
	Establishments (number)	375	370	360
	Employees (thousands)	19	19	17
	Capacity utilization (percent)	70	71	68
	U.S. shipments (million dollars)	2,438	2,944	2,300
	U.S. exports (million dollars)	662	664	656
	U.S. imports (million dollars)	668	642	590
	Apparent U.S. consumption (million dollars)	2,444	2,922	2,234
	Trade balance (million dollars)	(6)	22	66
	Ratio of imports to apparent consumption (percent)	27.3	22.0	26.4
	Ratio of exports to shipments (percent)	27.2	22.6	28.5
ME022	Non-metalworking machine tools and parts thereof:			
	Establishments (number)	345	345	345
	Employees (thousands)	14	13	12
	Capacity utilization (percent)	82	80	65
	U.S. shipments (million dollars)	1,461	1,535	1,200
	U.S. exports (million dollars)	367	375	328
	U.S. imports (million dollars)	603	590	547
	Apparent U.S. consumption (million dollars)	1,697	1,750	1,419
	Trade balance (million dollars)	(236)	(215)	(219)
	Ratio of imports to apparent consumption (percent)	35.5	33.7	38.5
	Ratio of exports to shipments (percent)	25.1	24.4	27.3
ME023	Semiconductor equipment, robots, and other machinery:			
	Establishments (number)	5,900	5,800	5,700
	Employees (thousands)	300	280	265
	Capacity utilization (percent)	75	70	69
	U.S. shipments (million dollars)	28,900	29,050	27,600
	U.S. exports (million dollars)	8,117	8,910	10,177
	U.S. imports (million dollars)	5,851	5,627	5,644
	Apparent U.S. consumption (million dollars)	29,355	29,454	28,014
	Trade balance (million dollars)	2,266	3,283	4,533
	Ratio of imports to apparent consumption (percent)	4.9	5.6	6.3
	Ratio of exports to shipments (percent)	3.4	4.2	4.9
ME024	Taps, cocks, valves, and similar devices:			
	Establishments (number)	908	904	910
	Employees (thousands)	100	98	112
	Capacity utilization (percent)	66	70	73
	U.S. shipments (million dollars)	9,096	9,515	9,768
	U.S. exports (million dollars)	982	1,231	1,346
	U.S. imports (million dollars)	1,437	1,635	1,760
	Apparent U.S. consumption (million dollars)	9,551	9,919	10,182
	Trade balance (million dollars)	(455)	(404)	(414)
	Ratio of imports to apparent consumption (percent)	15.0	16.5	17.3
	Ratio of exports to shipments (percent)	10.8	12.9	13.8
ME025	Ball and roller bearings:			
	Establishments (number)	143	143	140
	Employees (thousands)	39	39	38
	Capacity utilization (percent)	63	64	60
	U.S. shipments (million dollars)	4,135	4,105	4,350
	U.S. exports (million dollars)	511	738	727
	U.S. imports (million dollars)	995	968	909
	Apparent U.S. consumption (million dollars)	4,619	4,335	4,532
	Trade balance (million dollars)	(484)	(230)	(182)
	Ratio of imports to apparent consumption (percent)	21.5	22.3	20.1
	Ratio of exports to shipments (percent)	12.4	18.0	16.7

Table B-5--Continued
Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
ME026	Gear boxes and other speed changers; torque converters, etc.:			
	Establishments (number)	260	255	240
	Employees (thousands)	34	34	32
	Capacity utilization (percent)	85	80	75
	U.S. shipments (million dollars)	4,100	4,100	3,600
	U.S. exports (million dollars)	395	544	530
	U.S. imports (million dollars)	737	832	874
	Apparent U.S. consumption (million dollars)	4,442	4,388	3,944
	Trade balance (million dollars)	(342)	(288)	(344)
	Ratio of imports to apparent consumption (percent)	16.6	19.0	22.2
	Ratio of exports to shipments (percent)	9.6	13.3	14.7
ME027	Boilers, turbines, and related machinery:			
	Establishments (number)	40	39	35
	Employees (thousands)	38	37	33
	Capacity utilization (percent)	56	58	50
	U.S. shipments (million dollars)	3,390	3,540	3,000
	U.S. exports (million dollars)	742	632	897
	U.S. imports (million dollars)	337	332	305
	Apparent U.S. consumption (million dollars)	2,985	3,240	2,408
	Trade balance (million dollars)	405	300	592
	Ratio of imports to apparent consumption (percent)	11.3	10.2	12.7
	Ratio of exports to shipments (percent)	21.9	17.9	29.9
ME028	Electic motors, generators, and related equipment:			
	Establishments (number)	310	305	301
	Employees (thousands)	90	90	88
	Capacity utilization (percent)	68	69	68
	U.S. shipments (million dollars)	8,600	8,950	9,250
	U.S. exports (million dollars)	1,724	1,866	2,338
	U.S. imports (million dollars)	2,140	2,263	2,370
	Apparent U.S. consumption (million dollars)	9,016	9,347	9,282
	Trade balance (million dollars)	(416)	(397)	(32)
	Ratio of imports to apparent consumption (percent)	23.7	24.2	25.5
	Ratio of exports to shipments (percent)	20.0	20.8	25.3
ME029	Electrical transformers, static converters, and inductors:			
	Establishments (number)	300	295	290
	Employees (thousands)	49	48	46
	Capacity utilization (percent)	69	72	70
	U.S. shipments (million dollars)	4,840	4,980	5,150
	U.S. exports (million dollars)	862	1,058	1,118
	U.S. imports (million dollars)	1,506	1,643	1,800
	Apparent U.S. consumption (million dollars)	5,484	5,565	5,832
	Trade balance (million dollars)	(644)	(585)	(682)
	Ratio of imports to apparent consumption (percent)	27.5	29.5	30.9
	Ratio of exports to shipments (percent)	17.8	21.2	21.7
ME030	Primary cells and batteries and electric storage batteries:			
	Establishments (number)	250	251	251
	Employees (thousands)	36	36	36
	Capacity utilization (percent)	82	82	82
	U.S. shipments (million dollars)	5,202	5,264	5,300
	U.S. exports (million dollars)	479	590	797
	U.S. imports (million dollars)	701	719	795
	Apparent U.S. consumption (million dollars)	5,424	5,393	5,298
	Trade balance (million dollars)	(222)	(129)	2
	Ratio of imports to apparent consumption (percent)	12.9	13.3	15.0
	Ratio of exports to shipments (percent)	9.2	11.2	15.0

Table B-5--Continued
Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
ME031	Portable electric handtools:			
	Establishments (number)	30	29	29
	Employees (thousands)	8	8	8
	Capacity utilization (percent)	68	67	66
	U.S. shipments (million dollars)	1,160	1,200	1,300
	U.S. exports (million dollars)	190	224	252
	U.S. imports (million dollars)	393	356	332
	Apparent U.S. consumption (million dollars)	1,363	1,332	1,380
	Trade balance (million dollars)	(203)	(132)	(80)
	Ratio of imports to apparent consumption (percent)	28.8	26.7	24.1
	Ratio of exports to shipments (percent)	16.4	18.7	19.4
ME032	Nonelectrically powered hand tools and parts thereof:			
	Establishments (number)	50	49	49
	Employees (thousands)	11	12	10
	Capacity utilization (percent)	78	82	72
	U.S. shipments (million dollars)	1,314	1,390	1,290
	U.S. exports (million dollars)	334	341	348
	U.S. imports (million dollars)	459	435	420
	Apparent U.S. consumption (million dollars)	1,439	1,484	1,362
	Trade balance (million dollars)	(125)	(94)	(72)
	Ratio of imports to apparent consumption (percent)	31.9	29.3	30.8
	Ratio of exports to shipments (percent)	25.4	24.5	27.0
ME033	Ignition, starting, lighting, and other electical equipment:			
	Establishments (number)	526	510	510
	Employees (thousands)	66	66	66
	Capacity utilization (percent)	78	77	75
	U.S. shipments (million dollars)	9,055	9,091	8,900
	U.S. exports (million dollars)	622	870	939
	U.S. imports (million dollars)	1,358	1,259	1,156
	Apparent U.S. consumption (million dollars)	9,791	9,480	9,117
	Trade balance (million dollars)	(736)	(389)	(217)
	Ratio of imports to apparent consumption (percent)	13.9	13.3	12.7
	Ratio of exports to shipments (percent)	6.9	9.6	10.6
ME034	Flashlights and other similar electric lights, light bulbs, etc.:			
	Establishments (number)	375	370	365
	Employees (thousands)	34	34	33
	Capacity utilization (percent)	63	62	61
	U.S. shipments (million dollars)	4,720	4,625	4,500
	U.S. exports (million dollars)	419	562	660
	U.S. imports (million dollars)	668	715	764
	Apparent U.S. consumption (million dollars)	4,969	4,778	4,604
	Trade balance (million dollars)	(249)	(153)	(104)
	Ratio of imports to apparent consumption (percent)	13.4	15.0	16.6
	Ratio of exports to shipments (percent)	8.9	12.2	14.7
ME035	Electric and gas welding and soldering equipment:			
	Establishments (number)	184	184	184
	Employees (thousands)	19	19	21
	Capacity utilization (percent)	68	70	72
	U.S. shipments (million dollars)	2,521	2,571	2,648
	U.S. exports (million dollars)	317	385	389
	U.S. imports (million dollars)	410	297	435
	Apparent U.S. consumption (million dollars)	2,614	2,483	2,694
	Trade balance (million dollars)	(93)	88	(46)
	Ratio of imports to apparent consumption (percent)	15.7	12.0	16.1
	Ratio of exports to shipments (percent)	12.6	15.0	14.7

Table B-5--Continued
Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
ME036	Insulated electrical wire and cable, and conduit; etc.:			
	Establishments (number)	375	375	374
	Employees (thousands)	81	80	79
	Capacity utilization (percent)	78	79	78
	U.S. shipments (million dollars)	12,800	13,300	13,500
	U.S. exports (million dollars)	1,695	1,861	2,145
	U.S. imports (million dollars)	2,668	2,728	2,698
	Apparent U.S. consumption (million dollars)	13,773	14,167	14,053
	Trade balance (million dollars)	(973)	(867)	(553)
	Ratio of imports to apparent consumption (percent)	19.4	19.3	19.2
	Ratio of exports to shipments (percent)	13.2	14.0	15.9
ME037	Rail locomotive and rolling stock:			
	Establishments (number)	123	120	117
	Employees (thousands)	24	23	22
	Capacity utilization (percent)	50	50	50
	U.S. shipments (million dollars)	2,700	2,800	2,700
	U.S. exports (million dollars)	433	518	546
	U.S. imports (million dollars)	791	701	662
	Apparent U.S. consumption (million dollars)	3,058	2,983	2,816
	Trade balance (million dollars)	(358)	(183)	(116)
	Ratio of imports to apparent consumption (percent)	25.9	23.5	23.5
	Ratio of exports to shipments (percent)	16.0	18.5	20.2
ME038	Automobiles, trucks, buses, and bodies and chassis of the foregoing:			
	Establishments (number)	1,042	1,052	1,020
	Employees (thousands)	431	428	379
	Capacity utilization (percent)	84	72	67
	U.S. shipments (million dollars)	144,418	140,000	128,500
	U.S. exports (million dollars)	12,898	13,264	15,403
	U.S. imports (million dollars)	58,760	59,504	58,084
	Apparent U.S. consumption (million dollars)	190,280	186,240	171,181
	Trade balance (million dollars)	(45,862)	(46,240)	(42,681)
	Ratio of imports to apparent consumption (percent)	30.9	32.0	33.9
	Ratio of exports to shipments (percent)	8.9	9.5	12.0
ME039	Certain motor-vehicle parts:			
	Establishments (number)	2,785	2,765	2,750
	Employees (thousands)	389	384	382
	Capacity utilization (percent)	79	81	77
	U.S. shipments (million dollars)	65,000	69,000	63,000
	U.S. exports (million dollars)	10,844	13,713	13,520
	U.S. imports (million dollars)	12,783	12,618	11,565
	Apparent U.S. consumption (million dollars)	66,939	67,905	61,045
	Trade balance (million dollars)	(1,939)	1,095	1,955
	Ratio of imports to apparent consumption (percent)	19.1	18.6	18.9
	Ratio of exports to shipments (percent)	16.7	19.9	21.5
ME040	Motorcycles, mopeds, and parts:			
	Establishments (number)	58	58	58
	Employees (thousands)	4	4	4
	Capacity utilization (percent)	78	78	78
	U.S. shipments (million dollars)	545	560	576
	U.S. exports (million dollars)	199	306	441
	U.S. imports (million dollars)	637	449	584
	Apparent U.S. consumption (million dollars)	983	703	719
	Trade balance (million dollars)	(438)	(143)	(143)
	Ratio of imports to apparent consumption (percent)	64.8	63.9	81.2
	Ratio of exports to shipments (percent)	36.5	54.6	76.6

Table B-5--Continued
Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
ME041	Miscellaneous vehicles and transportation-related equipment:			
	Establishments (number)	1,200	1,204	1,204
	Employees (thousands)	70	72	72
	Capacity utilization (percent)	56	58	59
	U.S. shipments (million dollars)	6,230	7,165	7,200
	U.S. exports (million dollars)	1,620	1,777	2,244
	U.S. imports (million dollars)	708	1,078	1,194
	Apparent U.S. consumption (million dollars)	5,318	6,466	6,150
	Trade balance (million dollars)	912	699	1,050
	Ratio of imports to apparent consumption (percent)	13.3	16.7	19.4
	Ratio of exports to shipments (percent)	26.0	24.8	31.2
ME042	Aircraft, spacecraft, and related equipment:			
	Establishments (number)	340	340	335
	Employees (thousands)	575	545	535
	Capacity utilization (percent)	74	83	79
	U.S. shipments (million dollars)	47,710	50,096	50,000
	U.S. exports (million dollars)	23,290	29,439	34,403
	U.S. imports (million dollars)	5,728	6,369	7,501
	Apparent U.S. consumption (million dollars)	30,148	27,026	23,098
	Trade balance (million dollars)	17,562	23,070	26,902
	Ratio of imports to apparent consumption (percent)	19.0	23.6	32.5
	Ratio of exports to shipments (percent)	48.8	58.8	68.8
ME043	Ships, tugs, pleasure boats, and similar vessels:			
	Establishments (number)	2,550	2,525	2,400
	Employees (thousands)	158	155	150
	Capacity utilization (percent)	57	55	50
	U.S. shipments (million dollars)	14,400	13,900	13,500
	U.S. exports (million dollars)	1,011	1,291	1,174
	U.S. imports (million dollars)	600	348	279
	Apparent U.S. consumption (million dollars)	13,989	12,957	12,605
	Trade balance (million dollars)	411	943	895
	Ratio of imports to apparent consumption (percent)	4.3	2.7	2.2
	Ratio of exports to shipments (percent)	7.0	9.3	8.7
ME044	Motors and engines, except internal combustion, aircraft, or electric:			
	Establishments (number)	43	44	44
	Employees (thousands)	9	9	9
	Capacity utilization (percent)	83	84	84
	U.S. shipments (million dollars)	3,806	3,993	4,010
	U.S. exports (million dollars)	62	105	84
	U.S. imports (million dollars)	71	78	86
	Apparent U.S. consumption (million dollars)	3,815	3,966	4,012
	Trade balance (million dollars)	(9)	27	(2)
	Ratio of imports to apparent consumption (percent)	1.9	2.0	2.1
	Ratio of exports to shipments (percent)	1.6	2.6	2.1

Table B-6
Electronic technology sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
	Electronic technology sector:			
ST001	Office machines:			
	Establishments (number)	504	357	356
	Employees (thousands)	135	131	128
	Capacity utilization (percent)	76	69	65
	U.S. shipments (million dollars)	15,024	19,548	14,257
	U.S. exports (million dollars)	10,590	10,921	11,637
	U.S. imports (million dollars)	11,567	11,455	11,932
	Apparent U.S. consumption (million dollars)	16,001	20,082	14,552
	Trade balance (million dollars)	(977)	(534)	(295)
	Ratio of imports to apparent consumption (percent)	72.3	57.0	82.0
	Ratio of exports to shipments (percent)	70.5	55.9	81.6
ST002	Telephone and telegraph apparatus:			
	Establishments (number)	642	642	630
	Employees (thousands)	97	92	92
	Capacity utilization (percent)	68	67	66
	U.S. shipments (million dollars)	17,658	19,500	20,150
	U.S. exports (million dollars)	2,319	2,893	3,149
	U.S. imports (million dollars)	4,569	4,488	4,841
	Apparent U.S. consumption (million dollars)	19,908	21,095	21,842
	Trade balance (million dollars)	(2,250)	(1,595)	(1,692)
	Ratio of imports to apparent consumption (percent)	23.0	21.3	22.2
	Ratio of exports to shipments (percent)	13.1	14.8	15.6
ST003	Microphones, loudspeakers, audio amplifiers and combinations, etc.:			
	Establishments (number)	96	96	96
	Employees (thousands)	6	6	7
	Capacity utilization (percent)	71	72	73
	U.S. shipments (million dollars)	1,227	1,269	1,300
	U.S. exports (million dollars)	463	582	669
	U.S. imports (million dollars)	1,121	1,121	1,070
	Apparent U.S. consumption (million dollars)	1,885	1,808	1,701
	Trade balance (million dollars)	(658)	(539)	(401)
	Ratio of imports to apparent consumption (percent)	59.5	62.0	62.9
	Ratio of exports to shipments (percent)	37.7	45.9	51.5
ST004	Tape recorders, tape players, video cassette recorders, etc.:			
	Establishments (number)	56	56	56
	Employees (thousands)	7	6	6
	Capacity utilization (percent)	70	72	74
	U.S. shipments (million dollars)	522	572	620
	U.S. exports (million dollars)	389	461	483
	U.S. imports (million dollars)	5,013	4,539	4,814
	Apparent U.S. consumption (million dollars)	5,146	4,650	4,951
	Trade balance (million dollars)	(4,624)	(4,078)	(4,331)
	Ratio of imports to apparent consumption (percent)	97.4	97.6	97.2
	Ratio of exports to shipments (percent)	74.5	80.6	77.9
ST005	Unrecorded magnetic tapes, discs, and other media:			
	Establishments (number)	57	58	58
	Employees (thousands)	18	18	18
	Capacity utilization (percent)	78	77	78
	U.S. shipments (million dollars)	3,650	3,700	3,750
	U.S. exports (million dollars)	1,292	1,706	1,759
	U.S. imports (million dollars)	1,381	1,474	1,673
	Apparent U.S. consumption (million dollars)	3,739	3,468	3,664
	Trade balance (million dollars)	(89)	232	86
	Ratio of imports to apparent consumption (percent)	36.9	42.5	45.7
	Ratio of exports to shipments (percent)	35.4	46.1	46.9

Table B-6--Continued
Electronic technology sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
ST006	Records, tapes, compact discs, computer software, etc.:			
	Establishments (number)	6,700	6,900	7,400
	Employees (thousands)	119	133	143
	Capacity utilization (percent)	90	90	90
	U.S. shipments (million dollars)	31,440	36,300	39,000
	U.S. exports (million dollars)	1,126	1,872	2,201
	U.S. imports (million dollars)	266	316	379
	Apparent U.S. consumption (million dollars)	30,580	34,744	37,178
	Trade balance (million dollars)	860	1,556	1,822
	Ratio of imports to apparent consumption (percent)	0.9	0.9	1.0
	Ratio of exports to shipments (percent)	3.6	5.2	5.6
ST007	Radio transmission and reception apparatus, and combinations:			
	Establishments (number)	284	264	264
	Employees (thousands)	78	71	75
	Capacity utilization (percent)	87	87	87
	U.S. shipments (million dollars)	10,000	9,100	9,400
	U.S. exports (million dollars)	2,662	3,467	3,501
	U.S. imports (million dollars)	5,343	5,051	5,368
	Apparent U.S. consumption (million dollars)	12,681	10,684	11,267
	Trade balance (million dollars)	(2,681)	(1,584)	(1,867)
	Ratio of imports to apparent consumption (percent)	42.1	47.3	47.6
	Ratio of exports to shipments (percent)	26.6	38.1	37.2
ST008	Radio navigational aid, radar, and remote control apparatus:			
	Establishments (number)	115	115	115
	Employees (thousands)	125	135	135
	Capacity utilization (percent)	73	72	72
	U.S. shipments (million dollars)	14,000	15,100	14,700
	U.S. exports (million dollars)	1,193	1,218	1,244
	U.S. imports (million dollars)	460	448	496
	Apparent U.S. consumption (million dollars)	13,267	14,330	13,952
	Trade balance (million dollars)	733	770	748
	Ratio of imports to apparent consumption (percent)	3.5	3.1	3.6
	Ratio of exports to shipments (percent)	8.5	8.1	8.5
ST009	Television receivers and video monitors and combinations, etc.:			
	Establishments (number)	34	34	32
	Employees (thousands)	26	26	24
	Capacity utilization (percent)	70	70	70
	U.S. shipments (million dollars)	3,900	4,000	4,000
	U.S. exports (million dollars)	926	1,025	1,075
	U.S. imports (million dollars)	3,405	3,174	3,103
	Apparent U.S. consumption (million dollars)	6,379	6,149	6,028
	Trade balance (million dollars)	(2,479)	(2,149)	(2,028)
	Ratio of imports to apparent consumption (percent)	53.4	51.6	51.5
	Ratio of exports to shipments (percent)	23.7	25.6	26.9
ST010	Television apparatus (except receivers and monitors), etc.:			
	Establishments (number)	130	130	130
	Employees (thousands)	10	11	11
	Capacity utilization (percent)	77	77	77
	U.S. shipments (million dollars)	1,300	1,350	1,400
	U.S. exports (million dollars)	156	206	236
	U.S. imports (million dollars)	2,428	2,569	2,755
	Apparent U.S. consumption (million dollars)	3,572	3,713	3,919
	Trade balance (million dollars)	(2,272)	(2,363)	(2,519)
	Ratio of imports to apparent consumption (percent)	68.0	69.2	70.3
	Ratio of exports to shipments (percent)	12.0	15.3	16.9

Table B-6--Continued
Electronic technology sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
ST011	Electric sound and visual signaling apparatus:			
	Establishments (number)	232	232	232
	Employees (thousands)	15	14	14
	Capacity utilization (percent)	71	72	72
	U.S. shipments (million dollars)	1,950	1,830	1,740
	U.S. exports (million dollars)	271	331	418
	U.S. imports (million dollars)	916	872	921
	Apparent U.S. consumption (million dollars)	2,595	2,371	2,243
	Trade balance (million dollars)	(645)	(541)	(503)
	Ratio of imports to apparent consumption (percent)	35.3	36.8	41.1
	Ratio of exports to shipments (percent)	13.9	18.1	24.0
ST012	Electrical capacitors and resistors:			
	Establishments (number)	184	173	171
	Employees (thousands)	37	34	33
	Capacity utilization (percent)	70	72	73
	U.S. shipments (million dollars)	2,338	2,168	2,200
	U.S. exports (million dollars)	762	766	818
	U.S. imports (million dollars)	885	879	884
	Apparent U.S. consumption (million dollars)	2,461	2,281	2,266
	Trade balance (million dollars)	(123)	(113)	(66)
	Ratio of imports to apparent consumption (percent)	36.0	38.5	39.0
	Ratio of exports to shipments (percent)	32.6	35.3	37.2
ST013	Apparatus for making, breaking, protecting, or connecting electrical cs:			
	Establishments (number)	1,715	1,743	1,760
	Employees (thousands)	274	278	267
	Capacity utilization (percent)	82	80	76
	U.S. shipments (million dollars)	22,284	22,061	22,282
	U.S. exports (million dollars)	3,781	5,280	4,870
	U.S. imports (million dollars)	4,409	5,452	5,612
	Apparent U.S. consumption (million dollars)	22,912	22,233	23,024
	Trade balance (million dollars)	(628)	(172)	(742)
	Ratio of imports to apparent consumption (percent)	19.2	24.5	24.4
	Ratio of exports to shipments (percent)	17.0	23.9	21.9
ST014	Television picture tubes and other cathode ray tubes:			
	Establishments (number)	19	19	19
	Employees (thousands)	11	11	11
	Capacity utilization (percent)	80	80	80
	U.S. shipments (million dollars)	1,770	1,810	1,800
	U.S. exports (million dollars)	352	430	565
	U.S. imports (million dollars)	664	648	679
	Apparent U.S. consumption (million dollars)	2,082	2,028	1,914
	Trade balance (million dollars)	(312)	(218)	(114)
	Ratio of imports to apparent consumption (percent)	31.9	32.0	35.5
	Ratio of exports to shipments (percent)	19.9	23.8	31.4
ST015	Special.purpose tubes:			
	Establishments (number)	40	40	40
	Employees (thousands)	12	12	12
	Capacity utilization (percent)	80	80	80
	U.S. shipments (million dollars)	880	800	800
	U.S. exports (million dollars)	185	211	194
	U.S. imports (million dollars)	154	133	137
	Apparent U.S. consumption (million dollars)	849	722	743
	Trade balance (million dollars)	31	78	57
	Ratio of imports to apparent consumption (percent)	18.1	18.4	18.4
	Ratio of exports to shipments (percent)	21.0	26.4	24.3

Table B-6--Continued
Electronic technology sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
ST016	Diodes, transistors, integrated circuits, etc.:			
	Establishments (number)	483	483	483
	Employees (thousands)	175	171	164
	Capacity utilization (percent)	80	78	76
	U.S. shipments (million dollars)	22,410	22,962	22,200
	U.S. exports (million dollars)	9,657	857	10,999
	U.S. imports (million dollars)	12,320	12,169	13,081
	Apparent U.S. consumption (million dollars)	25,073	34,274	24,282
	Trade balance (million dollars)	(2,663)	(11,312)	(2,082)
	Ratio of imports to apparent consumption (percent)	49.1	35.5	53.9
	Ratio of exports to shipments (percent)	43.1	3.7	49.5
ST017	Electrical and electronic articles, apparatus, and parts, etc.:			
	Establishments (number)	660	653	658
	Employees (thousands)	41	38	38
	Capacity utilization (percent)	75	65	70
	U.S. shipments (million dollars)	4,000	2,950	3,150
	U.S. exports (million dollars)	1,341	1,314	1,589
	U.S. imports (million dollars)	848	946	815
	Apparent U.S. consumption (million dollars)	3,507	2,582	2,376
	Trade balance (million dollars)	493	368	774
	Ratio of imports to apparent consumption (percent)	24.2	36.6	34.3
	Ratio of exports to shipments (percent)	33.5	44.5	50.4
ST018	Automatic data processing machines:			
	Establishments (number)	673	739	700
	Employees (thousands)	203	194	182
	Capacity utilization (percent)	71	69	66
	U.S. shipments (million dollars)	39,371	38,605	37,520
	U.S. exports (million dollars)	12,593	13,804	14,316
	U.S. imports (million dollars)	14,058	15,416	18,014
	Apparent U.S. consumption (million dollars)	40,836	40,217	41,218
	Trade balance (million dollars)	(1,465)	(1,612)	(3,698)
	Ratio of imports to apparent consumption (percent)	34.4	38.3	43.7
	Ratio of exports to shipments (percent)	32.0	35.8	38.2

Table B-7
Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
	General manufactures:			
GM001	Photographic supplies:			
	Establishments (number)	115	115	115
	Employees (thousands)	36	35	34
	Capacity utilization (percent)	73	73	73
	U.S. shipments (million dollars)	8,795	9,500	9,400
	U.S. exports (million dollars)	1,499	1,719	1,791
	U.S. imports (million dollars)	1,330	1,409	1,486
	Apparent U.S. consumption (million dollars)	8,626	9,190	9,095
	Trade balance (million dollars)	169	310	305
	Ratio of imports to apparent consumption (percent)	15.4	15.3	16.3
	Ratio of exports to shipments (percent)	17.0	18.1	19.1
GM002	Exposed photographic plates, film, and paper:			
	Establishments (number)	200	200	200
	Employees (thousands)	230	240	230
	Capacity utilization (percent)	1/	1/	1/
	U.S. shipments (million dollars)	4,200 2/	5,350 2/	5,000 2/
	U.S. exports (million dollars)	85	110	102
	U.S. imports (million dollars)	91	88	81
	Apparent U.S. consumption (million dollars)	4,206	5,328	4,979
	Trade balance (million dollars)	(6)	22	21
	Ratio of imports to apparent consumption (percent)	2.2	1.7	1.6
	Ratio of exports to shipments (percent)	2.0	2.1	2.0
GM003	Luggage, handbags, and flat goods:			
	Establishments (number)	735	720	700
	Employees (thousands)	26	24	21
	Capacity utilization (percent)	80	80	80
	U.S. shipments (million dollars)	1,892	1,834	1,780
	U.S. exports (million dollars)	103	133	159
	U.S. imports (million dollars)	2,078	2,171	2,281
	Apparent U.S. consumption (million dollars)	3,867	3,872	3,902
	Trade balance (million dollars)	(1,975)	(2,038)	(2,122)
	Ratio of imports to apparent consumption (percent)	53.7	56.1	58.5
	Ratio of exports to shipments (percent)	5.4	7.3	8.9
GM004	Certain other leather goods:			
	Establishments (number)	405	400	400
	Employees (thousands)	8	8	8
	Capacity utilization (percent)	70	70	70
	U.S. shipments (million dollars)	467	500	530
	U.S. exports (million dollars)	48	44	63
	U.S. imports (million dollars)	138	148	140
	Apparent U.S. consumption (million dollars)	557	604	607
	Trade balance (million dollars)	(90)	(104)	(77)
	Ratio of imports to apparent consumption (percent)	24.8	24.5	23.1
	Ratio of exports to shipments (percent)	10.3	8.8	11.9
GM005	Musical instruments and accessories:			
	Firms (number)	475	475	450
	Employees (thousands)	15	14	13
	Capacity utilization (percent)	52	50	49
	U.S. shipments (million dollars)	900	875	805
	U.S. exports (million dollars)	250	293	303
	U.S. imports (million dollars)	750	727	713
	Apparent U.S. consumption (million dollars)	1,400	1,309	1,215
	Trade balance (million dollars)	(500)	(434)	(410)
	Ratio of imports to apparent consumption (percent)	53.6	55.5	58.7
	Ratio of exports to shipments (percent)	27.8	33.5	37.6

See footnotes at end of table.

Table B-7--Continued
Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
GM006	Umbrellas, whips, riding crops, and canes:			
	Establishments (number)	24	22	20
	Employees (numbers)	530	480	430
	Capacity utilization (percent)	60	60	60
	U.S. shipments (million dollars)	50	55	60
	U.S. exports (million dollars)	6	8	10
	U.S. imports (million dollars)	136	146	143
	Apparent U.S. consumption (million dollars)	180	193	193
	Trade balance (million dollars)	(130)	(138)	(133)
	Ratio of imports to apparent consumption (percent)	75.6	75.6	74.1
	Ratio of exports to shipments (percent)	12.0	14.5	16.7
GM007	Silverware and certain other articles of precious metal:			
	Establishments (number)	46	46	46
	Employees (thousands)	2	2	2
	Capacity utilization (percent)	71	72	73
	U.S. shipments (million dollars)	170	175	179
	U.S. exports (million dollars)	63	85	127
	U.S. imports (million dollars)	61	50	41
	Apparent U.S. consumption (million dollars)	168	140	93
	Trade balance (million dollars)	2	35	86
	Ratio of imports to apparent consumption (percent)	36.3	35.7	44.1
	Ratio of exports to shipments (percent)	37.1	48.6	70.9
GM008	Precious jewelry and related articles:			
	Firms (number)	2,200	2,200	2,150
	Employees (thousands)	38	37	36
	Capacity utilization (percent)	49	48	49
	U.S. shipments (million dollars)	3,750	3,625	3,570
	U.S. exports (million dollars)	424	428	428
	U.S. imports (million dollars)	2,761	2,608	2,589
	Apparent U.S. consumption (million dollars)	6,087	5,805	5,731
	Trade balance (million dollars)	(2,337)	(2,180)	(2,161)
	Ratio of imports to apparent consumption (percent)	45.4	44.9	45.2
	Ratio of exports to shipments (percent)	11.3	11.8	12.0
GM009	Costume jewelry and related articles:			
	Firms (number)	940	930	910
	Employees (thousands)	19	18	17
	Capacity utilization (percent)	55	60	60
	U.S. shipments (million dollars)	1,375	1,425	1,395
	U.S. exports (million dollars)	89	110	123
	U.S. imports (million dollars)	437	461	491
	Apparent U.S. consumption (million dollars)	1,723	1,776	1,763
	Trade balance (million dollars)	(348)	(351)	(368)
	Ratio of imports to apparent consumption (percent)	25.4	26.0	27.9
	Ratio of exports to shipments (percent)	6.5	7.7	8.8
GM010	Bicycles:			
	Establishments (number)	30	30	30
	Employees (thousands)	4	4	5
	Capacity utilization (percent)	65	70	75
	U.S. shipments (million dollars)	750	810	880
	U.S. exports (million dollars)	46	114	174
	U.S. imports (million dollars)	681	750	745
	Apparent U.S. consumption (million dollars)	1,385	1,446	1,451
	Trade balance (million dollars)	(635)	(636)	(571)
	Ratio of imports to apparent consumption (percent)	49.2	51.9	51.3
	Ratio of exports to shipments (percent)	6.1	14.1	19.8

See footnotes at end of table.

Table B-7--Continued
Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
GM011	Optical fibers, optical fiber bundles and cables:			
	Establishments (number)	50	50	52
	Employees (thousands)	5	6	6
	Capacity utilization (percent)	85	87	88
	U.S. shipments (million dollars)	964	1,100	1,300
	U.S. exports (million dollars)	143	172	247
	U.S. imports (million dollars)	40	62	57
	Apparent U.S. consumption (million dollars)	861	990	1,110
	Trade balance (million dollars)	103	110	190
	Ratio of imports to apparent consumption (percent)	4.6	6.3	5.1
	Ratio of exports to shipments (percent)	14.8	15.6	19.0
GM012	Optical goods, including ophthalmic goods:			
	Establishments (number)	900	900	905
	Employees (thousands)	58	59	60
	Capacity utilization (percent)	78	78	82
	U.S. shipments (million dollars)	4,000	4,200	4,450
	U.S. exports (million dollars)	933	985	1,071
	U.S. imports (million dollars)	1,811	1,872	1,920
	Apparent U.S. consumption (million dollars)	4,878	5,087	5,299
	Trade balance (million dollars)	(878)	(887)	(849)
	Ratio of imports to apparent consumption (percent)	37.1	36.8	36.2
	Ratio of exports to shipments (percent)	23.3	23.5	24.1
GM013	Photographic cameras and equipment:			
	Establishments (number)	650	640	635
	Employees (thousands)	13	13	13
	Capacity utilization (percent)	73	73	73
	U.S. shipments (million dollars)	1,620	1,595	1,580
	U.S. exports (million dollars)	759	764	807
	U.S. imports (million dollars)	1,686	1,560	1,728
	Apparent U.S. consumption (million dollars)	2,547	2,391	2,501
	Trade balance (million dollars)	(927)	(796)	(921)
	Ratio of imports to apparent consumption (percent)	66.2	65.2	69.1
	Ratio of exports to shipments (percent)	46.9	47.9	51.1
GM014	Medical goods:			
	Establishments (number)	2,295	2,300	2,305
	Employees (thousands)	163	163	165
	Capacity utilization (percent)	81	82	83
	U.S. shipments (million dollars)	17,500	19,200	20,500
	U.S. exports (million dollars)	4,493	5,317	6,206
	U.S. imports (million dollars)	2,799	3,292	3,762
	Apparent U.S. consumption (million dollars)	15,806	17,175	18,056
	Trade balance (million dollars)	1,694	2,025	2,444
	Ratio of imports to apparent consumption (percent)	17.7	19.2	20.8
	Ratio of exports to shipments (percent)	25.7	27.7	30.3
GM015	Surveying and navigational instruments:			
	Establishments (number)	356	353	350
	Employees (thousands)	68	69	70
	Capacity utilization (percent)	68	68	67
	U.S. shipments (million dollars)	6,826	7,086	7,230
	U.S. exports (million dollars)	1,411	1,519	1,734
	U.S. imports (million dollars)	432	479	499
	Apparent U.S. consumption (million dollars)	5,847	6,046	5,995
	Trade balance (million dollars)	979	1,040	1,235
	Ratio of imports to apparent consumption (percent)	7.4	7.9	8.3
	Ratio of exports to shipments (percent)	20.7	21.4	24.0

See footnotes at end of table.

Table B-7--Continued
Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
GM016	Watches:			
	Establishments (number)	9	9	9
	Employees (thousands)	1	1	1
	Capacity utilization (percent)	59	59	59
	U.S. shipments (million dollars)	184	205	220
	U.S. exports (million dollars)	96	120	126
	U.S. imports (million dollars)	749 3/	1,443 3/	1,855
	Apparent U.S. consumption (million dollars)	837	1,528	1,949
	Trade balance (million dollars)	(653)	(1,323)	(1,729)
	Ratio of imports to apparent consumption (percent)	89.5	94.4	95.2
	Ratio of exports to shipments (percent)	52.2	58.5	57.3
GM017	Clocks and timing devices:			
	Establishments (number)	50	50	50
	Employees (thousands)	2	2	2
	Capacity utilization (percent)	65	65	64
	U.S. shipments (million dollars)	455	545	535
	U.S. exports (million dollars)	69	89	100
	U.S. imports (million dollars)	128 3/	233 3/	317
	Apparent U.S. consumption (million dollars)	514	689	752
	Trade balance (million dollars)	(59)	(144)	(217)
	Ratio of imports to apparent consumption (percent)	24.9	33.8	42.2
	Ratio of exports to shipments (percent)	15.2	16.3	18.7
GM018	Arms and ammunition:			
	Establishments (number)	385	390	395
	Employees (thousands)	92	95	100
	Capacity utilization (percent) 4/	75	80	80
	U.S. shipments (million dollars) 4/	6,000	6,200	6,500
	U.S. exports (million dollars) 4/	1,859	2,336	2,311
	U.S. imports (million dollars) 4/	486	463	515
	Apparent U.S. consumption (million dollars) 4/	4,627	4,327	4,704
	Trade balance (million dollars) 4/	1,373	1,873	1,796
	Ratio of imports to apparent consumption (percent) 4/	10.5	10.7	10.9
	Ratio of exports to shipments (percent) 4/	31.0	37.7	35.6
GM019	Furniture and selected furnishings:			
	Establishments (number)	15,000	15,000	15,000
	Employees (thousands)	550	550	550
	Capacity utilization (percent)	73	72	72
	U.S. shipments (million dollars)	46,000	48,000	48,000
	U.S. exports (million dollars)	1,098	1,731	2,256
	U.S. imports (million dollars)	4,962	5,050	4,981
	Apparent U.S. consumption (million dollars)	49,864	51,319	50,725
	Trade balance (million dollars)	(3,864)	(3,319)	(2,725)
	Ratio of imports to apparent consumption (percent)	10.0	9.8	9.8
	Ratio of exports to shipments (percent)	2.4	3.6	4.7
GM020	Writing instruments and related articles:			
	Establishments (number)	265	270	270
	Employees (thousands)	15	15	15
	Capacity utilization (percent)	65	68	65
	U.S. shipments (million dollars)	1,555	1,660	1,700
	U.S. exports (million dollars)	168	193	207
	U.S. imports (million dollars)	387	447	451
	Apparent U.S. consumption (million dollars)	1,774	1,914	1,944
	Trade balance (million dollars)	(219)	(254)	(244)
	Ratio of imports to apparent consumption (percent)	21.8	23.4	23.2
	Ratio of exports to shipments (percent)	10.8	11.6	12.2

See footnotes at end of table.

Table B-7--Continued
Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
GM021	Lamps and lighting fittings:			
	Establishments (number)	1,650	1,600	1,570
	Employees (thousands)	67	65	65
	Capacity utilization (percent)	80	75	73
	U.S. shipments (million dollars)	300	400	8,500
	U.S. exports (million dollars)	246	315	373
	U.S. imports (million dollars)	1,243	1,311	1,295
	Apparent U.S. consumption (million dollars)	1,297	1,396	9,422
	Trade balance (million dollars)	(997)	(996)	(922)
	Ratio of imports to apparent consumption (percent)	95.8	93.9	13.7
	Ratio of exports to shipments (percent)	82.0	78.8	4.4
GM022	Prefabricated buildings:			
	Establishments (number)	1,200	1,300	1,300
	Employees (thousands)	86	86	86
	Capacity utilization (percent)	60	60	60
	U.S. shipments (million dollars)	9,200	9,100	9,100
	U.S. exports (million dollars)	154	171	276
	U.S. imports (million dollars)	47	34	21
	Apparent U.S. consumption (million dollars)	9,093	8,963	8,845
	Trade balance (million dollars)	107	137	255
	Ratio of imports to apparent consumption (percent)	0.5	0.4	0.2
	Ratio of exports to shipments (percent)	1.7	1.9	3.0
GM023	Children's vehicles:			
	Establishments (number)	45	45	45
	Employees (thousands)	3	3	3
	Capacity utilization (percent)	80	80	80
	U.S. shipments (million dollars)	315	320	330
	U.S. exports (million dollars)	15	23	28
	U.S. imports (million dollars)	183	179	206
	Apparent U.S. consumption (million dollars)	483	476	508
	Trade balance (million dollars)	(168)	(156)	(178)
	Ratio of imports to apparent consumption (percent)	37.9	37.6	40.6
	Ratio of exports to shipments (percent)	4.8	7.2	8.5
GM024	Dolls:			
	Establishments (number)	180	180	180
	Employees (thousands)	4	4	4
	Capacity utilization (percent)	70	70	70
	U.S. shipments (million dollars)	145	155	160
	U.S. exports (million dollars)	19	17	21
	U.S. imports (million dollars)	616	772	845
	Apparent U.S. consumption (million dollars)	742	910	984
	Trade balance (million dollars)	(597)	(755)	(824)
	Ratio of imports to apparent consumption (percent)	83.0	84.8	85.9
	Ratio of exports to shipments (percent)	13.1	11.0	13.1
GM025	Toys and models:			
	Establishments (number)	340	320	315
	Employees (thousands)	16	13	12
	Capacity utilization (percent)	71	72	71
	U.S. shipments (million dollars)	1,500	1,475	1,485
	U.S. exports (million dollars)	294	382	387
	U.S. imports (million dollars)	2,694	2,716	2,880
	Apparent U.S. consumption (million dollars)	3,900	3,809	3,978
	Trade balance (million dollars)	(2,400)	(2,334)	(2,493)
	Ratio of imports to apparent consumption (percent)	69.1	71.3	72.4
	Ratio of exports to shipments (percent)	19.6	25.9	26.1

See footnotes at end of table.

Table B-7--Continued
Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
GN026	Games and fairground amusements:			
	Establishments (number)	75	75	75
	Employees (thousands)	65	68	70
	Capacity utilization (percent)	70	70	75
	U.S. shipments (million dollars)	1,350	1,500	1,800
	U.S. exports (million dollars)	375	547	684
	U.S. imports (million dollars)	2,413	2,818	2,091
	Apparent U.S. consumption (million dollars)	3,388	3,771	3,207
	Trade balance (million dollars)	(2,038)	(2,271)	(1,407)
	Ratio of imports to apparent consumption (percent)	71.2	74.7	65.2
	Ratio of exports to shipments (percent)	27.8	36.5	38.0
GN027	Sporting goods:			
	Establishments (number)	1,900	1,950	2,050
	Employees (thousands)	60	65	70
	Capacity utilization (percent)	75	75	80
	U.S. shipments (million dollars)	5,200	5,500	5,800
	U.S. exports (million dollars)	795	828	930
	U.S. imports (million dollars)	1,613	1,644	1,750
	Apparent U.S. consumption (million dollars)	6,018	6,316	6,620
	Trade balance (million dollars)	(818)	(816)	(820)
	Ratio of imports to apparent consumption (percent)	26.8	26.0	26.4
	Ratio of exports to shipments (percent)	15.3	15.1	16.0
GN028	Smokers' articles:			
	Establishments (number)	18	17	15
	Employees (thousands)	1	1	1
	Capacity utilization (percent)	64	64	65
	U.S. shipments (million dollars)	162	164	166
	U.S. exports (million dollars)	48	59	77
	U.S. imports (million dollars)	105	130	132
	Apparent U.S. consumption (million dollars)	219	235	221
	Trade balance (million dollars)	(57)	(71)	(55)
	Ratio of imports to apparent consumption (percent)	47.9	55.3	59.7
	Ratio of exports to shipments (percent)	29.6	36.0	46.4
GN029	Brooms, brushes, and hair grooming articles:			
	Establishments (number)	300	300	290
	Employees (thousands)	13	13	12
	Capacity utilization (percent)	60	60	60
	U.S. shipments (million dollars)	1,000	1,000	1,000
	U.S. exports (million dollars)	57	74	95
	U.S. imports (million dollars)	436	423	453
	Apparent U.S. consumption (million dollars)	1,379	1,349	1,358
	Trade balance (million dollars)	(379)	(349)	(358)
	Ratio of imports to apparent consumption (percent)	31.6	31.4	33.4
	Ratio of exports to shipments (percent)	5.7	7.4	9.5
GN030	Apparel fasteners:			
	Establishments (number)	120	110	110
	Employees (thousands)	7	7	6
	Capacity utilization (percent)	65	65	68
	U.S. shipments (million dollars)	450	461	468
	U.S. exports (million dollars)	44	51	59
	U.S. imports (million dollars)	79	90	109
	Apparent U.S. consumption (million dollars)	485	500	518
	Trade balance (million dollars)	(35)	(39)	(50)
	Ratio of imports to apparent consumption (percent)	16.3	18.0	21.0
	Ratio of exports to shipments (percent)	9.8	11.1	12.6

See footnotes at end of table.

Table B-7--Continued
Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-91

USITC code	Commodity group	1989	1990	1991
GM031	Miscellaneous articles:			
	Establishments (number)	1,700	1,700	1,700
	Employees (thousands)	22	22	22
	Capacity utilization (percent)	60	60	60
	U.S. shipments (million dollars)	20,000	23,800	26,200
	U.S. exports (million dollars)	1,836	2,493	1,503
	U.S. imports (million dollars)	3,310	3,522	3,347
	Apparent U.S. consumption (million dollars)	21,474	24,829	28,044
	Trade balance (million dollars)	(1,474)	(1,029)	(1,844)
	Ratio of imports to apparent consumption (percent)	15.4	14.2	11.9
	Ratio of exports to shipments (percent)	9.2	10.5	5.7
GM032	Balances of a sensitivity of 5 cg or better:			
	Establishments (number)	11	13	13
	Employees (thousands)	0	0	0
	Capacity utilization (percent)	60	60	58
	U.S. shipments (million dollars)	25	30	31
	U.S. exports (million dollars)	9	11	14
	U.S. imports (million dollars)	34	28	31
	Apparent U.S. consumption (million dollars)	50	47	48
	Trade balance (million dollars)	(25)	(17)	(17)
	Ratio of imports to apparent consumption (percent)	68.0	59.6	64.6
	Ratio of exports to shipments (percent)	36.0	36.7	45.2
GM033	Drawing and mathematical calculating or measuring instruments:			
	Establishments (number)	190	185	185
	Employees (thousands)	8	8	7
	Capacity utilization (percent)	60	62	60
	U.S. shipments (million dollars)	603	602	610
	U.S. exports (million dollars)	169	136	138
	U.S. imports (million dollars)	196	183	196
	Apparent U.S. consumption (million dollars)	630	649	668
	Trade balance (million dollars)	(27)	(47)	(58)
	Ratio of imports to apparent consumption (percent)	31.1	28.2	29.3
	Ratio of exports to shipments (percent)	28.0	22.6	22.6
GM034	Measuring, testing, controlling, and analyzing instruments:			
	Establishments (number)	3,240	3,235	3,235
	Employees (thousands)	240	239	238
	Capacity utilization (percent)	78	78	78
	U.S. shipments (million dollars)	22,345	23,000	23,300
	U.S. exports (million dollars)	6,381	7,098	7,757
	U.S. imports (million dollars)	3,174	3,369	3,621
	Apparent U.S. consumption (million dollars)	19,138	19,271	19,164
	Trade balance (million dollars)	3,207	3,729	4,136
	Ratio of imports to apparent consumption (percent)	16.6	17.5	18.9
	Ratio of exports to shipments (percent)	28.6	30.9	33.3
GM035	Footwear and footwear parts:			
	Establishments (number)	700	700	700
	Employees (thousands)	95	91	85
	Capacity utilization (percent)	85	85	73
	U.S. shipments (million dollars)	4,314	4,335	3,685
	U.S. exports (million dollars)	367	477	541
	U.S. imports (million dollars)	8,375	9,538	9,542
	Apparent U.S. consumption (million dollars)	12,322	13,396	12,686
	Trade balance (million dollars)	(8,008)	(9,061)	(9,001)
	Ratio of imports to apparent consumption (percent)	68.0	71.2	75.2
	Ratio of exports to shipments (percent)	8.5	11.0	14.7

1/ Not available.
2/ Estimated, based on industry statistics; reflects value of both raw stock and rentals.
3/ Although these data are official Census data, they understate actual imports.
4/ Data do not include those for guided missiles and parts.

END

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